

MINING ASSOCIATION OF CORNWALL AND DEVON— MINING INSTITUTE OF CORNWALL.

The amalgamation of the Mining Institute of Cornwall with this Association is a matter upon which the members of both societies may well be congratulated, since it may be regarded as the first step towards the establishment in the western counties of a technical mining school, whose alumni will be in every respect equal to the graduates of Freiberg, Clausthal, or Columbia College (New York) Schools of Mines, or of the Mining and Metallurgical Department of Melbourne University. It is understood that the success of the movement for amalgamation is, to a large extent, due to the exertions of Mr. R. J. Frecheville, H.M. Inspector for the district, and the hearty support given is, perhaps, the best evidence that could be that the mining engineers and miners of Cornwall and Devon are unanimous in their desire to do all that is practicable to keep Cornish miners in advance of those offered all other districts. In moving, at the Mining Institute of Cornwall meeting, the resolution approving the amalgamation, Mr. HUSBAND stated that the secretary had sent out letters asking for the opinion of the members of the Institute on the subject, and there had been received 82 replies agreeing to the amalgamation and only one against it. That seemed to him to be exceedingly satisfactory, and he was quite sure the result would prove most beneficial. The amalgamation would save expense, and bring their young students into contact with the members of the Miners' Association. He had no doubt in future Cornwall would send out men, uniting theory with practice, that would be a credit to the county. The motion was unanimously agreed to, and the general feeling of the meeting was, that in the result all would be greatly benefited.

Previous to commencing the ordinary business of the meeting the President, Mr. R. J. FRECHEVILLE, stated that it had been brought to the notice of the council of the Institute that certain very onerous restrictions were in contemplation of being placed on the dynamite business. The council had had the restrictions to be placed by the Government under their consideration, and they had passed the following resolutions:—"Resolved, that it having been brought to the knowledge of this Institute or council that it is intended by the Home Office to enforce by Order in Council or by conditions in licenses the employment of day and night watchmen on all magazines and stores of explosives, this Institute desires to record its strong opinion of the uselessness and unwisdom of this proposal, and instructs the secretary to prepare a memorial on the subject, to be signed by the President on behalf of the Institute, and presented to the Members of Parliament for the county soliciting their best services to prevent such a restriction being imposed." In the discussion upon the resolution it was remarked that the outrages which had led to this panic legislation had been sifted out, but they had not been traced in any one instance to the explosive of a British manufacturer. In eight or nine cases they had been traced to explosives of American manufacture, and consequently the proposal to enforce the employment of day and night watchmen at British manufactories was absurd. If manufacturers had to pay a quarter of a million of money extra each year it would have to be raised somewhere, and the consumers would have to pay for it. He recommended to them very strongly the proposal that had been made by the council of the Institute. The resolution was carried unanimously.

In a paper "On the Duty and Maintenance of Husband's Oscillating Cylinder Stamps," Mr. W. DERRY, manager of Owen Vean and Tregurtha Downs Mines, stated that in the preparation of his paper his object was to record the extraordinary performance of these stamps in the most concise and simple manner, and by dealing with the salient and important points afford the members of the Institute material from which to form their own conclusions. He would confine himself to a narration of facts that were indispensable. Four of the stamps were at work at the Owen Vean and Tregurtha Downs Mines. He referred to a paper read by Mr. Loam at the last meeting of the Royal Cornwall Polytechnic Society on these stamps, and stated that the facts given by Mr. Loam were justified by subsequent experience at the above mentioned mines. The first two heads were started on June 7, and the remaining two on June 21 last. From causes wholly unconnected with themselves the stamps had not been constantly at work since their erection. He was safe, however, in saying that three months was considerably within the actual time of constant running. He would take the performance from Sept. 1 to Sept. 23 as fairly performing their duty, including stoppages, to be 2000 tons 15 cwt., at the rate of 86 tons per day of 24 hours. The lodestuff stamped was principally chloride, of probably about the average hardness of rock stamped in Cornwall. The maximum speed was 125, and the average barely (as far as he could judge) 122 blows per minute. The copper grates were very fine, 36 hole, three grades of equal size to each copper, and each having a perforated area of 21½ in. square. The stone was sent into the passes fully 30 per cent. larger in size than the standard adopted in the county for the supply of stamps of the old sort. The quantity of grate water was very small compared with what he was informed had been supplied to this kind of stamps elsewhere, and herein lay probably to a great extent the secret of the extra work they had performed there. Soon after starting the tin dresser expressed the opinion that the large quantity of water impeded the exit of the stamped stuff through the grates, and by lessening the water very considerably they wonderfully increased the duty. He considered that a most important point, and persons adopting these stamps would do well to bear that in mind. The quantity of water used must doubtless vary in different mines according to the character of the stuff and the grates used. The materials worn out in the reduction of the 2000 tons 15 cwt. of tinstone and their cost amounted to a total cost of 18½ s. 6d., or barely 2½d. per ton of stuff stamped. He might explain that 20 cwt. to the ton was the standard of results obtained in the trial reported in Mr. Loam's paper. On Oct. 16 he instituted another severe 24 hours' trial, with a result of 86 tons 16 cwt., or 7 tons less than in the former trial. This falling off he accounted for by the grates being nearly all new, and also from the heads and dies being worn much below an average condition. This he regarded as a trial of the stamps under disadvantageous circumstances. The question of coal consumption was not accurately determined, the boilers not being in proper order. He thought that 3½ tons of coal per day would be found about the quantity consumed. Next came the question of durability, and the maintenance of the various parts other than those before referred to. An outlay of 39½ s. 9d. would practically provide a new one head battery, or in other words, when the four heads were completely worn out they might be replaced by an expenditure of 156½ s. The period when this would become necessary was evidently remote, as by merely re-planing the guides, re-boring the cylinders, and supplying new piston rings at comparatively little cost, the whole would be virtually renewed. On the Sept. 29 stamps were taken abroad and carefully examined, and the only wear that could be detected was the mere removal of the burr or traces of the fitting shop. An iron wire 9½ in. long would hang suspended across the middle of the pneumatic cylinders, that being their exact diameter at the outlet. The fineness of the coffer grates used indicated the nature of their tin, which was exceptionally fine in the grain. They stamped direct into the round buddles, and the separation was excellent, the tails of the first or stamps buddles, unworthy of further treatment, were sent direct to the barrows. These were authentic facts of a conclusive nature requiring no further comment from him. He might say, however, in conclusion, that it would afford him the greatest possible pleasure to receive the visits of members or others desirous of seeing the stamps at work, and to answer enquiries on the subject.

In the discussion which followed the reading of the paper, the PRESIDENT remarked that there could be no doubt that the reduction of tinstuff to the proper size for dressing purposes was one of the greatest importance to the mining industry of Cornwall. Of late years there had been a great many improvements in many other departments of mining, but there had been very little improvement in regard to stamping machinery. The Americans were far ahead of them in this respect, but he thought Mr. Husband had advanced beyond the American invention with such an enormous bound that the whole question of stamping in Cornwall would have to be re-

considered. Mr. Husband's stamps worked as smoothly as possible, and he really thought in a county like Cornwall that they would be the stamps of the future.

MINING PROGRESS IN QUEENSLAND.

Subjoined is an abstract of a letter from the Sellheim Silver Mines published by the Charters Towers and North Queensland Mining Journal. The private company was taken up, says the writer, by Messrs. Hornung and McDonald on July 2, 1883, area 80 acres. The lode runs nearly east and west, and underlies to the north about 1 ft. horizontal to 10 ft. vertical. The first shaft, sunk 90 ft. on the underlie, produced about 40 tons of galena. A level to the west was put in 20 ft., at 70 ft. from the surface, and another opposite this was put in 24 ft. east; 30 tons of galena being obtained from the two. The assays are said to run from 70 to 90 ozs. of silver and 75 to 80 per cent. of lead to the ton. Two more shafts have been started; one is down 18 ft. The lode is 3 ft. 6 in. wide. The other shaft is just commenced. Luckily there is little or no water to contend with, in fact an easier place to work could hardly be found. In some of the assays from this claim 1 oz. 6 dwts. of gold was obtained, as well as the silver and lead. The name of this claim is the Pyramid, and employs eight men. The Venture is a 20 acre lease adjoining the former property. It is owned by five men, two of whom work it. Two shafts have been sunk on their lode.

Although it is thought by some that this is a continuation of the Pyramid lode, there seems to be little doubt that it is merely a tributary, as the course, underlie, and ore all differ from it. A sample of the ore stacked in the paddock was sent to Mr. Staiger for assay, who found it not to be silver at all. The result of the assay showed 75 per cent. mispickel, 15 per cent. lead, 10 per cent. quartz or sand, and 5 ozs. 12 dwts. of gold per ton. On the Bonnie Dundee lease, adjoining the Pyramid, on its southern boundary, two shafts have been sunk—one 36 ft. deep, lode 5 ft. wide, and the other 80 ft. deep, still sinking no levels; 10 tons of ore are awaiting shipment to England. The assays range from 73 to 130 ozs. of silver to the ton. At the bottom of the 80 ft. shaft about 2 ft. 6 in. good mundic stone has come in, which is to be tried for gold. Messrs. Stable and Batt have started a 20 acres lease, and another lease has been taken up by Mr. Thomas Johnson, of the John Bull, Ravenswood; area, 40 acres. It is a large lode in granite country, and, although the ore does not show much galena, it must assay well, as it was tried before it was applied for.

The writer was on the main road from Bowen to the west, 120 miles from Bowen, 70 miles from Ravenswood, and 8 miles from Mount Wyatt. All the ore there had been carried at 4½. 10s. per ton, and 1½. 10s. freight to London. It is very likely that the Bowen carriers will not be equal to the demand so soon as stamping commences. Very little prospecting has been done, and there is plenty of room for new arrivals to try their luck. The Argentine claim, owned by Mr. G. P. Morey, has a shaft down 50 ft.; formation quartz, galena, and black jet.

I.—The Ravenswood Silver Mining Company have shipped during the half-year ended June 28, 353 tons of ore, of the value of 93217. There were 71 tons at the port, and 48 tons on the sampling-floors, valued at 2287½, making a total of 11,608½. Since the opening of the mine 1369 tons of ore, equal to 762 tons of pig-lead, containing 173,270 ozs., or over 5½ tons of fine silver, have been shipped to England. At Hillsborough a splendid lode of silver has been found 10 ft. thick, which is expected to eclipse all others on that field. The owners have 25 tons in the paddock at present. At the Esperanza lease 1 ton 8 cwt. of buddings yielded 5 ozs. 14 dwts. of gold. Barber and party, at Washington, crushed 60 tons for a yield of 240 ozs. 14 dwts. of gold. This crushing took 14 weeks to get, and will pay the shareholders well. The claim has a reef about 2 ft. wide.

RAILWAYS IN MINES.—The economical conveyance of minerals underground, especially at the present time, is of primary importance. Of late years improvements have taken place, but it is considered that even the existing system is capable of being improved upon. One of the principal objects to be obtained is the minimising of friction, which resists the motion of all carriages running over rails on wheels, which includes the contact of the periphery of the wheel with the rail, attraction of the axle, and the oscillation of the load. From experiments made by an eminent mining engineer, it appears that on an ordinary railway connected with a mine on the surface the resistance in some instances did not exceed the 1-240th part of the load, whilst on the best constructed railways it is not more than 1-500th part of the load. On the other hand, on underground railways, with the road in good condition, the friction has been found to be something like 1-110th part of the weight, and with rails worn at the top, and the road in ordinary condition, the friction was found to be about 1-82nd part of the weight. For a great many years Carr's tram-plates, which superseded the wooden ways and broad wheels, were in the ascendant. They were introduced by Mr. Carr at the Duke of Norfolk's coal mines, near Sheffield, along with the sharp-edged wheels, and these diminished the resistance of friction. These, however, have had to give way to round top rails with the broad flanged wheels, being lighter and stronger, and are now in use at most first-class mines. It has been found that the friction of the flanges is very much less than that of the sharp-edged wheels with Carr's plates, whilst the rails can be made much stronger and more durable and with the same weight of material. At many mines two iron rails are laid down, whilst it is admitted that those made of steel are by far the cheapest in the long run; the same is also admitted to be the case with respect to wheels. In connection with the rails, self-acting and inclined planes can be most advantageously adopted where the minerals have to pass a considerable distance down gradients having a fall of from 1 in 30 to 1 in 40. On most parts of the Continent inclined planes are made to serve two or three of the faces, especially where the formations are steeply inclined. These are laid with four rails, on the outer part of which there is a tram with a horizontal platform on which the tub goes along. On the inner pair of rails there is another long, heavy, and narrow tram, which performs the duty and acts as a counterbalance, and is so constructed that it can pass underneath the first one when they meet. The trams are attached to ropes coiled upon a drum at the top of the incline, and when the weight of the full tubs in descending raises the counterbalance, the latter pulls up the empty tubs. Underground railways, indeed, are more costly than many persons are aware of, and how to increase their durability is a most interesting problem for the mining engineer to solve, and we feel assured can be done.

METALLISING WOOD.—According to Van Nostrand's Magazine, Rubennick's process for metallising wood consists in steeping the wood in a caustic alkali for two or three days, according to its degree of permeability, at a temperature between 164° and 197° Fahr. The wood is then placed in a second bath of hydrosulphate of calcium, to which is added, after 24 or 38 hours, a concentrated solution of sulphur. After 48 hours the wood is immersed in a third bath of acetate of lead, at a temperature between 95° and 122° Fahr., where it remains from 30 to 50 hours. After a complete drying the wood thus treated is susceptible of a very fine polish, especially if its surface is rubbed with a piece of lead, tin, or zinc, and finished with a burnisher of glass or porcelain. It then looks like a metallic mirror, and is completely sheltered from the deteriorating effects of moisture.

PURE MAGNESIUM.—Grützfeld's patent for the separation of alkaline metals by electrolysis has been very successful in the reduction of magnesium. At a late sitting of the Electrochemische Verein, in Berlin, a ball of magnesium of about 15 centimetres diameter excited general attention. It was of superb brilliancy, similar to that of silver, and had lost nothing of its lustre since its separation by electrolysis. This preservation is a sign of its chemical purity, and forms a remarkable contrast to the magnesium hitherto obtained, which was always more or less affected by potassium, and consequently easily oxidised, especially in a damp atmosphere. Magnesium seems destined to increasing maritime use; for its rays appear to have a greater penetrating power in fogs and mists than those of the electric light.

MINING PROGRESS IN NEW ZEALAND.

The mining prospects of New Zealand are beginning to wear a brighter aspect. A shipment of 13 tons of native copper, a magnificent specimen of the product of the Champion Company's Mine, cannot fail to create a very favourable impression, and the directors now feel justified in taking steps to proceed with the permanent working of their mines. A smelting-furnace has been ordered, and tenders invited for a tramway from the mine to the furnace site, on the banks of the Roding river. A 36-in. water-jacket copper smelter, with all necessary plant, including ore crusher, and blower for the furnace, is to be erected shortly. These smelters are being largely introduced in the colonies. The principle on which they are constructed consists in providing for keeping the sides of the furnace, which are composed of iron, cooled by means of a current of cold water circulating between the furnace sides and an outer covering, the result claimed being that the whole of the heat is then available for smelting, whilst none is wasted in heating brickwork. The directors believe that the poor ore from this mine, containing but 5 per cent. of copper, could be made to pay by means of the water-jacket smelter, and consequently that the profit on treating the richer ores would be very great. At this mine strong native copper has been found, and the directors are confident that by the time the smelting works are completed, and the tramway finished, they will be able to keep the smelter in full work. At the Nelson Chamber of Commerce Mr. Smythe referred to the resolution of the directors of the Champion Copper Mine to erect smelting works as speedily as possible, and also to construct some 3 miles of tramway to their smelting furnace site. He said the Government had surveyed a road leading up Aniseed valley, past the furnace site, and had constructed a section of 3 miles of the road, situate some 5 miles below that site. It was most desirable that the Government should complete the road, in order that the company could get their machinery in position. In an account of a visit to these mines, contributed to the Lyttleton Times, it is stated that the two mines are in the Aniseed valley, in close proximity to one another, about 8 miles from Nelson, in a thickly wooded country, well watered, and with every facility for mining operations. About 2 miles before reaching the mine they came upon a fine flat piece of land (the only level piece in the vicinity), covering an area of 20 acres, the property of the Champion Company, who purchased it for the purpose of subsequently erecting smelting works thereupon.

This company has a long lease of 1150 acres of clearly defined mineral land. Arriving at the scene of operations it was found that quite an extensive settlement was already formed, and the white tents and wooden buildings, with all the signs of life and activity, convinced one that some extensive work was being carried on. A clear deep stream winds through the midst of the scene, and all around one hears the sound of mining labour in all its various forms. The work accomplished was very surprising. In the hill to the right from the approach are two drives at different elevations, the lower being the main and most extensive of the two. They are connected by a shaft at a distance of some hundred odd feet from the mouth, and a shaft is also being sunk to a lower level from the main drive. Cross-cuts are made both to the right and left, thus enabling the manager to thoroughly determine the nature and direction of the lodes. The copper, in several forms, is very abundant, grey ore, black oxide, and native copper being the most common in this working so far; and copper pyrites or yellow sulphides being apparently, so far, nearly absent. The native copper in the lode runs in a diagonal direction, apparently to a very considerable depth, and we could see it plainly visible as far as the blasting operations had been carried. One difficulty experienced in working upon this part of the lode is that it lies in an unsettled country, or, in other words, that this part of the hills has been disturbed by volcanic agency, so that the lode is often interrupted and lost for a time, and has to be again picked up. Frequently large masses of native copper are taken out of very considerable weight, one piece alone having been found weighing over ½ ton; and we saw numbers of these huge blocks of solid copper at the mouth of the drive, some of which the writer was unable to lift from the ground.

Crossing the stream the party visited the drive made into the opposite hill. The work here has gone far enough to prove that the country is of an undisturbed formation, and that the lode can be worked continuously without fear of interruption. This is the same hill that the United workings are in on the other side, and consequently by continuing this drive it is proposed to connect the two mines and form a tunnel through the hill, thus forming an outlet through the newly-acquired property for the ore, and this will eventually become the shortest and most direct route for the road of communication, besides thoroughly proving the extent and richness of the lode in so doing. The most extensive work yet accomplished by the company has been the sinking of a large shaft, 10 ft. 4 in. close to the stream to a depth of 150 ft. It is intended to cut drives in each direction, and then work the lode at a low level. There are some 100 to 150 tons of ore ready for transportation. When the road is finished, and an easy outlet thereby obtained, it is estimated that these mines will produce at least 500 tons of copper ore per month which taken at the average of the 20 tons already shipped will amount to 100,000½ worth of copper per annum. Leaving the Champion Mine the party visited the United Mine, and there, as at the Champion Mine, they found indications of extensive work and progress. The mine manager conducted them into one of the drives—there were three at different levels—and there, as at the other side of the hill, the country was undisturbed, and what was, and is, a very important item of consideration, they were working on a bed of rich copper pyrites, so rich that they could plainly detect it before, above, and around them. Great importance is attached to this fact, not merely because this yellow sulphide is the most payable and workable form of ore, but because it is known to be an invariable indication of a permanent mine when a bed of yellow sulphides is come upon.

From what he saw he firmly believes that there is an immense fortune to be made out of this mine alone, and it was certainly a wise step for the Champion Company to have taken to secure it at the price they did. He left with the conviction that a grand prospect exists for the future of this company.

FIFESHIRE COAL FIELDS.—As the result of extensive sinking operations undertaken by the Cowdenbeath Coal Company on their recently-purchased Foulford estate the lower or Dumfermline coal seam has been struck. At a depth of 150 fms. the seam was struck, and the coal found to be 4½ ft. thick. Eight workable seams were passed through in the shaft—total thickness of 50 ft. It is estimated that at least 300 acres of the respective seams will be found on the estate. Heavy pumping machinery has been erected on the bank, and it is expected that when the seams are developed the output from the one pit will reach 500 tons per day. This company has also obtained a lease of the minerals on the Lumphanans estate, and are largely augmenting the machinery there. In one of the pits at Cowdenbeath the Lochelly splint has been struck with a cross-cut mine, and has been found to be 12 ft. 9 in. in thickness. It is computed that the company will have at least an area of 1800 acres of coal before them, which will yield 100,000,000 tons. The present output of the colliery is 1200 tons daily, but [when the new shafts have been got in thorough working order it is expected that this will be doubled. Two coal washers have been introduced at the colliery—a mechanical contrivance by which the "beans" are separated from "nuts," and subjected to a thorough process of washing. The colliery promises to be the largest in Fifeshire, if not in Scotland.

BANKING BUSINESS IN NEW SOUTH WALES.—At the end of June last the total paid up capital of the various New South Wales banks was 8,960,000½, and their reserves and undivided profits 4,771,005½—equal to 13,731,005½ of banking capital. This represents a diminution of 1,500,000½ in the amount of the paid up capital—the amount of that of the Oriental Bank—but the reserves show an increase of about 50,000½. The total amount paid for the last dividends had been 635,250½, ranging from 5 per cent. in the case of the London Chartered, to 25 per cent. in the case of the Commercial Bank of Sydney.

Registration of New Companies.

The following joint-stock companies have been duly registered:—

JOSEPH TURNER AND COMPANY (Limited).—Capital 30,000*l.*, in shares of 10*l.* To acquire and carry on a chemical business established at Queensferry, County of Flint. The subscribers (who take one share each) are—G. Raynor, Leeds; A. Hess, Leeds; F. Wardle, Leeds; J. Hess, Leeds; B. Hess, Leeds; W. C. Deeley, Chester; H. Turner, Chester.

SHARROD AND COMPANY (Limited).—Capital 20,000*l.*, in shares of 10*l.* To acquire, take over, and carry on an established business in the manufacture of boot and shoe makers. The subscribers (who take five shares each) are—J. Garrard, Ipswich; E. Whitehead, Ipswich; W. Garrard, Ipswich; F. K. Frost, Ipswich; F. Juggins, Ipswich; W. Garrard, Leiston; A. Raphael, Ipswich; J. Hillary, Ipswich.

THE CORNISH TELEGRAPH COMPANY (Limited).—Capital 30,000*l.*, in shares of 1*l.* 10*s.* To print and publish said paper, and to carry on a general business of printers, lithographers, &c. The subscribers (who take one share each) are—C. F. Smith, Liverpool; E. L. Lewes, Liverpool; J. S. Betts, Long Sutton; W. W. Townson, Liverpool; J. Fidler, Liverpool; J. S. Rigby, Farnworth; G. Readdy, Liverpool.

THE HOLYWELL LIME AND CEMENT COMPANY (Limited).—Capital 15,000*l.*, in shares of 5*l.* To adopt and carry into effect a certain agreement made between E. Fidler of the one part, and E. Lewis of the other, for the acquisition of a property situated in the parish of Holywell, and for the purpose of fully developing the same, and carrying on all operations connected with mining, quarrying, lime, and cement manufacturing, &c. The subscribers (who take one share each) are—C. F. Smith, Liverpool; E. L. Lewes, Liverpool; J. S. Betts, Long Sutton; W. W. Townson, Liverpool; J. Fidler, Liverpool; J. S. Rigby, Farnworth; G. Readdy, Liverpool.

JOHN TESTER AND COMPANY (Limited).—Capital 20,000*l.*, in shares of 10*l.* To acquire and carry on a business of sewing-machine manufacturers and dealers, carried on in various localities. The subscribers (who take one share each) are—J. Tester, 119, Goswell-road; J. Dunn, Birmingham; J. E. Hough, Oldham; S. Law, Birmingham; G. Kenway, Birmingham; T. Goodman, Peterborough; W. Viner, Edgbaston.

FARRAR AND COMPANY (Limited).—Capital 5,000*l.*, in shares of 10*l.* To acquire and carry on an established business of leather merchants and boot and shoe manufacturers at Southport. The subscribers (who take one share each) are—J. Farrar, Southport; T. Sheppard, Southport; J. Lawson, Southport; A. Williamson, Southport; A. Lord, Southport; J. Cowley, Southport; G. Thompson, Southport.

THE NEW HOVER HILL GOLD MINING COMPANY (Limited).—Capital 60,000*l.*, in shares of 10*l.* To acquire and take over the assets and liabilities, &c., of a company bearing the same name, for the purpose of fully developing its property and carrying on all operations connected with a gold mining company, the extraction and crushing of quartz and other minerals, &c. The subscribers (who take one share each) are—G. Hopkins, 30, Parliament-street, C.E.; W. Stronge, 9, Osbourne Terrace, C.B.; G. Richardson, 3, Lombard-court, merchant; R. T. Lattey, 16, Devonshire-square, solicitor; J. Bower, 38, Craven Hill Gardens, gentleman; A. N. Frewer, 121, King Henry's-road, gentleman. The first board is composed of the following gentlemen—G. Hopkins, C. W. Stronge, and G. Richardson. The number must not exceed six or be less than three, and the remuneration for the Chairman 250*l.*, and for each director 200*l.* per annum; qualification 500 shares.

THE BRITISH AND FOREIGN PRODUCE COMPANY (Limited).—Capital 50,000*l.*, in shares of 10*l.* The business of importing, buying, selling, and dealing in cattle, sheep, swine, poultry, and all other kinds of farm products. The subscribers are—E. Vortisch, 269, King's-road, 250; V. Sinclair, 48, Arundel-square, 1; H. J. Tweedie, 21, Colford-street, 1; C. Hirsch, 253, Brixton-road, 1; W. Lange, East Dulwich, 5; F. Natzler, Bishopsgate-street, 5; C. T. Leadbetter, Brixton, 1.

THE KENT AND SUSSEX FREEHOLD LAND SOCIETY (Limited).—Capital 100,000*l.*, in shares of 10*l.* To carry on the usual business of a land company and building society. The subscribers are—J. Henson, Rochester, 500; H. S. Pledge, Kennington Mills, 500; E. Henson, Ashford, 500; W. R. King, Ashford, 500; A. Cheekfield, Ashford, 1; T. Justice, Ashford, 1; W. Baker, Ashford, 1.

THE LAND PASTORAL COMPANY OF SOUTH AUSTRALIA (Limited).—Capital 500,000*l.*, in shares of 10*l.* To acquire land of any nature, or interests in the same, and to carry on all businesses connected with farming, cattle and sheep raising, agriculture, &c. The subscribers are—H. Brooks, St. Peter's Chambers, 100; A. F. Buxton, 64, Threadneedle-street, 100; J. Harrold, 29, Great St. Helen's, 100; J. Stokes, 11, Gledhow Gardens, 100; H. Brooks, St. Peter's Chambers, 100; F. W. Stokes, 11, Gledhow Gardens, 100; A. Ashcroft, 29, Groombridge-road, 10.

THE BEXHILL GAS COMPANY (Limited).—Capital 5,000*l.*, in shares of 10*l.* The making and supplying of gas to said town and the neighbourhood. The subscribers (who take one share each) are—J. Brown, Bexhill; G. W. Veness, Bexhill; A. Williams, 70, Bankside; J. Church, 17n, Great George-street; T. H. Hovenden, 181, Bishopgate-street Without; R. Berridge, 15, Highbury Grove; J. Mainwaring, 15, Cannon-street.

THE NOTTINGHAMSHIRE AND MIDLAND FIRE INSURANCE COMPANY (Limited).—Capital 250,000*l.*, in shares of 10*l.* The usual business in all branches of a fire insurance company. The shareholders (who take 200 shares each) are—R. Birkin, Nottingham; T. T. Birkin, Nottingham; C. J. Cox, Nottingham; W. Lambert, Nottingham; R. Halford, Nottingham; C. Curtis, Nottingham; R. Evans, Nottingham; J. P. Cox, Nottingham; J. Oldknow, Nottingham.

THE DAYBROOK WRAPPING COMPANY (Limited).—Capital 20,000*l.*, in shares of 50*l.* The preparation, manufacture, and sale of carpets, rugs, and similar fabrics. The subscribers (who take one share each) are—T. H. Tiesby, Nottingham; C. H. Addyman, Nottingham; A. J. Butler, Nottingham; J. Wade, Wortley; W. Lambert, Nottingham; J. Robinson, Nottingham; J. Hind, Nottingham.

THE AUTOMATIC BOILER-FEED (Limited).—Capital 12,000*l.*, in shares of 1*l.* The general business of engineers, boilers, and machinery manufacturers and repairers, machinists, &c. The subscribers (who take one share each) are—E. Wilde, South Tottenham; C. A. Watson, South Tottenham; J. Ralph, Stamford Hill; W. H. Jumper, 7, Seven Sisters-road; T. J. Mcndro, South Tottenham; O. Rawlings, Chelsea; E. Scott, Bucklersbury.

THE HULL QUEEN'S WARD WORKING MEN'S CLUB COMPANY (Limited).—Capital 1000*l.*, in shares of 1*l.* To establish and maintain at Kingston-upon-Hull a club house, billiard rooms, reading rooms, &c. The subscribers (who take one share each) are—J. Graves, Hull; H. Bridgen, Hull; H. Haworth, Hull; J. Harrison, Hull; E. G. Oglesby, Hull; J. Tapp, Hull; A. Routledge, Hull.

Meetings of Public Companies.

MINERALOGICAL SOCIETY.

The anniversary meeting of members was held in the theatre of the Geological Museum, Jermyn-street, on Oct. 21.

Prof. T. G. BONNEY, D.Sc., F.R.S., P.G.S., in the chair.

Mr. B. H. SCOTT (honorary secretary), read the report of the Council, in which it was stated that the year had been marked by an important step in the history of the society—its fusion with the Crystallogical Society—which was carried into effect at the special general meeting in December. The balance-sheet for 1883 shows signs of steady improvement, showing a credit balance of 17*l.* 6*s.* 4*d.*, whereas the year had commenced with an adverse balance of 8*l.* 2*s.* 3*d.* The excess of assets over all liabilities on Jan. 1 was 191*l.* 16*s.* 6*d.*, being an increase of 18*l.* 11*s.* 5*d.* At present, October, the only unpaid account for printing is that for the last number of the journal (No. 27). The total amount of other accounts outstanding is 12*l.* 1*s.*, and there is a balance at the bank more than sufficient to meet it. The number of members shows a slight increase owing to the election of the members of the Crystallogical Society, and in addition five new members have been elected. The Council regret to say that two members have been removed by death, Mr. S. F. Bowden and Prof. G. Sella, the latter of whom has left a gap among the statesmen as well as the scientific men of Italy which it will be hard to fill. Of the papers which have been laid before the society during the session the Council especially mention those by Prof. Steenstrup and the late Dr. Lorenzen on the so-called meteoric iron first brought by Baron Nordenfjeld from the basalt of Greenland. The Council hope that the appearance of these communications in English will attract to them a wider notice in this country than if they had remained in the original Danish.

The scrutineers reported that the office-bearers elected for the ensuing year were:—President, Prof. T. G. Bonney, D.Sc., F.R.S., P.G.S.; Vice-President: Rev. S. Haughton, M.D., F.R.S., W. H. Hudleston, J.P., F.R.S.—Council: T. W. Dant, M.A., F.G.S., J. J. Bobble, D.Sc., L. Fletcher, M.A., Prof. W. J. Lewis, M.A., F.R.S., R. P. Greig, D.Sc., &c. &c. General Secretary: R. H. Scott, M.A., F.R.S.—Foreign Secretary, T. Davies, F.G.S.

The PRESIDENT congratulated the society on the satisfactory character of the report just presented by the Council. This mentioned three topics, all for congratulation. First it announced that the fusion of the society with the Crystallogical, thanks to the good offices of the honorary secretary had been accomplished. Next, it announced that the finances of the society, which three years ago were in a condition far from satisfactory, were now restored to a healthy tone. Lastly, it spoke of the great success which had attended the meeting held in Edinburgh last June. He hinted that in future one of the meetings of the society would always be held in Scotland. He then proceeded to criticise two defects which, in his opinion, existed in systematic mineralogy as set forth by many authors. To some extent these were questions of nomenclature; but, in his opinion, they involved questions of principle. The one was the extreme proneness of mineralogists to give distinctive names to slight, and often very ill-defined, varieties of existing species, thus leading students to mental habits of dissociation rather than of correlation. The other, at first sight, appeared exactly the converse of this—the laxity with which certain substances were classed as minerals; for instance, obsidian pitchstone, &c., were often placed under the head of ordinary class felspar, but they could not be brought under any received definition of a mineral. He pointed out how, in consequence as he believed, of the defective habits of reasoning thus engendered, the contributions to petrology, even of skilled mineralogists, were sometimes of little value.

Mr. R. H. Solly read a paper "On Fine Specimens of Lilac Calcite from Tannerville Mine, Selkirk," and Mr. Semmons contributed some further notes "On Enargite." Mr. Guyot de Grandmaison exhibited a very fine crystal of Parisite; Mr. Kuderer, Mr. F. W. Dant, and several other gentlemen presented interesting minerals. The proceedings terminated with the usual complimentary votes.

KOHINOOR AND DONALDSON CONSOLIDATED MINING COMPANY.

An extraordinary general meeting of shareholders was held at the City Terminus Hotel, on Tuesday.

Mr. JOHN ELLIOT (the Chairman of the company) presiding.

Mr. W. H. ROWE (the secretary) read the notice convening the meeting.

The CHAIRMAN said the shareholders had been called together for the main object of hearing from Mr. Solague, and also from Mr. Mallory (who, he was glad to say, was able to be present, he having been very unwell) their opinion of the company's properties. The shareholders would doubtless bear in mind that a meeting of the company was held in May last, and in compliance with the earnest wish of the directors a committee of shareholders was appointed to be associated with the board, and to assist them in their various matters, and especially to advise as to the board in the future conduct of the company until it could get out of its then difficulties. That committee had been formed, and the manner in which the members of it had assisted the board in every possible way had been a source of great gratification to the board. They had cordially joined in every act of the directors since their election, and out of that fact had arisen this further fact that Mr. Solague, having business to attend to in America, had kindly volunteered to go to the mines at his own cost, and to inspect them for the company, and give his opinion with regard to them. Mr. Solague had been accompanied by Mr. Mallory, a mining expert of 30 years' experience, and of great practical skill, who had been officially engaged to inspect the properties. Both gentlemen were now present, and he (the Chairman) could only tell the shareholders that the reports sent home by Mr. Mallory so completely accorded with the views that he had all along entertained in regard to the properties that it was an unspeakable satisfaction to him to have them confirmed by a gentleman of Mr. Mallory's experience. He would ask Mr. Mallory to give the shareholders a description of the property, and then Mr. Solague would address the meeting, as he was so well able to do.

Mr. MALLORY said he had visited the mines, and inspected them thoroughly. The Donaldson was a very nice property, in which the shoots of ore dipped to a certain incline in the lode, and he found them all very regular and very uniform. He had inspected all the levels and had seen all the ore bodies which had been laid open, and in his report he had underestimated their real value, because he did not wish to exaggerate anything. He considered the Donaldson Mine second to none in the district, the shoots of ore being very continuous. The mill was one of the most complete he had seen, and they had an abundant supply of water; and, with the stamps and other modern improvements now in course of erection, they would have every means of treating the ores successfully. The free vanners and other labour saving apparatus being quite complete. The Champion Mine had been sunk to a depth of 600 ft., and as yet three shoots of ore had been discovered, varying in length from 150 to 200 ft. The ore body was from 8 to 12 ft. wide, yielding ore worth from \$3 to \$15 to the ton throughout the mine. This was not a speculation at all, but an actual certainty. The wire tramway was nearly complete for conveying the stuff to the mill—indeed, it was completed and the other would shortly be finished. The hoisting works and the other arrangements at the Champion Mine were the finest he had seen for many a day. Everything had been done in the most workmanlike manner, and he believed that in Mr. Alfred Rickard, the manager, they had a man who was unequalled in the country.

Mr. SOLAGUE, after mentioning that he had had no idea of visiting the property until after the last meeting of the company, said that having business in other parts of America, he felt that being comparatively near the mines it would hardly be fair to his fellow-shareholders, and especially to those shareholders he had brought into the company, if he did not visit the properties, and he therefore, informed the board that he would do so. He also suggested that he should take out with him an experienced miner to examine and report upon the property, and the directors at once acquiesced in his views. After a railway journey occupying three days and three nights they reached Denver on a Saturday morning at 6 o'clock, and after another journey they reached Idaho Springs at 11.30 on the same day. On the following day they visited the Champion Mine, which was situated about 10,000 ft. above the sea-level. He was no miner, but he had enough common sense to judge of what he saw. He had been through the different levels, and, indeed, through the mine, and Mr. Mallory, who accompanied him, had pointed out the characteristics of the deposits and their value. The wire tramway, 3000 ft. above the sea-level, with the buckets going to and fro, was one of the greatest pieces of engineering skill he had ever seen. It had not been quite completed, but it could easily be completed, and it would then be automatic, and the ore would be sent to the mill without the employment of any power whatever. Mr. Rickard (the manager) pointed out that it would be a great saving if they had a rock-breaker which would break the ore and send it in buckets to the mill. As it was now the big lumps had to be picked out, and it was only the small stuff that could be sent through the tramway. The necessary alterations could be made at a very small expense. Having spent five hours at the Donaldson Mine, the rest of the day was given up to an examination of the mill. The mill site was one of the best in the whole of Colorado. They had a fall of water that would keep from 500 to 1000 tons running. At present it was proposed to employ 50 Gipsin stamps, and these would soon be completed. On the following day they inspected the Champion Mine, which was 10,500 ft. above the level of the sea. The wire tramway from this mine went down without bend or break to the mill at Clear Creek, thus giving at present a continuous supply of 50 tons a day from the mine (the same quantity as from the Donaldson Mine) to the mill.

Mr. HOPKINS: How far are the mines distant from each other?

Mr. SOLAGUE: About 3 miles as the crow flies. At the Champion Mine, where they had carefully examined the hoisting works, they had a set of men second to none in Colorado. They were working together harmoniously under the manager, and they were putting up some exceedingly fine machinery. He had visited the California, the Bobtail, and other mines; but he had seen no such works as they had at the Champion Mine. They had a body of ore at the Champion Mine which without any further development would take them years and years to take away. The ore would run from \$10 to \$15 per ton, and though the working expenses for labour and fuel were heavy they should certainly not exceed \$5 per ton, leaving a profit of at least 100 per cent. on the ore crushed. The mill was quite capable of doing very much more work, and he crushed. The mill was quite capable of doing very much more work, and he crushed. The mill was quite capable of doing very much more work, and he crushed.

Mr. SOLAGUE: The gold was undoubtedly there, and all they had to do was to get it out of the ore. He had visited the California Mine, in which probably many of those now present were interested, where with a lode only 3 ft. wide they were earning good dividends. The Champion lode was from 8 to 12 ft. wide, and should certainly earn much larger profits. He referred to the past history of the company, and mentioned that whereas the Donaldson Mine was bought for \$40,000 it was sold to this company for \$200,000. He would ask Mr. Rickard if he could tell the shareholders where the 140,000*l.* or 150,000*l.* of their money had gone to?

Mr. RICKARD expressed surprise that the amount spent had been so large, and said it had gone in the works which Mr. Solague had seen.

The CHAIRMAN explained that for the Donaldson Mine 5500*l.* was paid in cash and 34,500*l.* in shares, and for the Champion Mine 20,000*l.* in cash and 10,000*l.* in shares.

Mr. SOLAGUE, in continuation, said the Kohinoor Mine was of no practical value to the company, being 3 miles distant from the base of their operations. He had gone to the properties prejudiced against Mr. A. Rickard and his management; but he had been convinced that a more honest and conscientious man than Mr. Rickard did not exist. He therefore advised the shareholders to have confidence in their manager, and, above all, to find the paltry sum of 4000*l.* or 5000*l.*, which was now needed to complete the works and put the company generally in a thoroughly satisfactory position.

The CHAIRMAN remarked that the Champion Mine had been bought on the authority of the reports furnished by various experts, including Mr. Rickard, and they were told that this mine alone would give them a profit of 20,000*l.* a year. Had the shareholders responded as they should have done to the appeal of the board for more capital they would have been able to complete the works, and have been in receipt by this time of 15,000*l.* or 16,000*l.* a year. By not responding, the company had been placed in considerable financial straits.

Mr. SOLAGUE mentioned that the operations of the tributors had been suspended, because they were picking out the eyes of the mine. As soon as the mill was completed the men would be in full work.

Mr. T. RICKARD, in reply to questions, said that there were now 40 or 50 men employed at the Donaldson Mine. The value of mines depended on their milling power to a large extent, and in this respect the company was most favourably situated. He fully confirmed the favourable views of the properties entertained by his brother, Mr. Alfred Rickard.

Mr. GEORGE HOPKINS described the terrible financial condition to which the company had formerly been reduced for want of capital. Their position had been truly lamentable. However, 8000*l.* or 9000*l.* had been subscribed, and it now needed only 5000*l.* or 6000*l.* to place the company on a good financial basis. He had become connected with the concern at the earnest request of several of his friends, and he congratulated the shareholders on the improved position of the company, and on the fact that if the amount stated were subscribed they would be in a sound financial position, and have a reasonable amount of working capital in hand.

Mr. URWICK expressed his satisfaction with the statements that had been made, and said he would set the example of subscribing towards the funds needed.

After a lengthened conversation Mr. URWICK proposed a cordial vote of thanks to Mr. Solague, Mr. Mallory, and Mr. Hopkins for their services to the company.—Mr. WALKER, in seconding the motion, said he would follow the example of Mr. Urwick, and assist the company with money.

The motion was carried, and other promises of support were made. The meeting then closed with a vote of thanks to the Chairman.

DEVON GREAT UNITED COMPANY.

The ordinary general meeting of shareholders was held at the offices of the company, Austin Friars, on Wednesday.

Mr. PETER WATSON in the chair.

Mr. W. H. ALLEN (the secretary) read the notice convening the meeting. The report and accounts were taken as read.

The CHAIRMAN said: Gentlemen, before we go on to discuss the business of the mine, it is my painful duty to have to inform you that since the last meeting of the shareholders, held on May 29, our esteemed Chairman (the Right Hon. Lord Claud Hamilton) has died. On that occasion he filled the chair, as he had done since the commencement of the company, and throughout all its vicissitudes he had, with his colleagues, paid considerable attention to the development of the mines and the interests of the shareholders generally. He took a particular interest in this undertaking, and you will remember how at the last meeting he laid the whole position of our affairs so completely before you, and how he congratulated you on the improvement in its prospects which was then acting in, and which has continued, as the report in your hands shows. We have sold, as you will see, 93 tons of ore, realising 416*l.* 15*s.*, which was the highest price at the time, while the two cost-sheets amounted to 477*l.* 3*s.* 4*d.*, thus showing a loss for the period named of 66*l.* 13*s.* 4*d.* only, notwithstanding the depressed prices of copper now prevailing—probably the lowest during the past 100 years. Had we received a better price for our copper ore, instead of making a loss we should have made a profit. Such, however, is the position of affairs at the present time, and as you will see by our report, the directors, after carefully considering the situation, recommend that this company be wound up voluntarily, with a view to reconstruction upon such terms as may be suggested at the meeting. The directors are of opinion, from all the information obtainable, that by sinking the shaft from 10 to 15 fms. deeper, and by the drainage of the level by rock-drills, rich deposits of copper and munda ore will be found, and a productive and profitable mine opened up. We have not been able to use the rock-drills for six months, as being short of capital we wished to make it last as long as possible. Mr. Willesford will agree to a liberal arrangement respecting royalties until the mines are made to pay dividends to the members. Now, gentlemen, we come to the state of the mines. I may say that we have done everything we possibly could in the interests of the shareholders to develop the property according to the resources at our disposal. You will find by the agent's report that we have driven 11 fms. 2 ft. 6 in. in the 120 west in a lode worth from 1 to 4 tons of copper ore per fathom, now worth 2 tons of copper ore and arsenical munda per fathom, and we believe, from the congenial aspect of the strata and the promising appearance of the lode, that an improvement will soon again take place. The report of Capt. Richards goes to state that the 120 has been driven east 4 fms. 3 ft. 1 in. in a lode from 3 to 5 ft. wide, of a strong and masterly character, and worth in places 1 ton of good copper ore per fathom. Looking at the general appearance and value of the lode in this (the 120) east and west, or bottom of the mine, we are strongly of opinion that by deeper sinking large deposits of copper ore will be laid open, which will be returned at good profits to the shareholders. The lode in the 60, west of Watson's level of cause, is about 3 ft. wide, producing rich stones of copper ore and arsenical munda, and we have no doubt that by developing this part of the company's property in length and depth profitable results will follow here also. Since March 17 last over 1200*l.* worth of copper ore has been sold from the discoveries made in the 120 and 104, and we can only repeat that our confidence in the future success of the property is unabated, and we advise the sinking of Willesford's shaft to a deeper level, and it is our opinion that before the depth for a 135 fm. level is reached, we shall get a productive lode in the shaft, and to further this we have reason to believe that the lords will meet the shareholders by a liberal concession of dues. This is what the manager and agents give in their report. The Chairman then stated that since the death of Lord C. Hamilton, Mr. Henry Bentley, one of the largest shareholders, had been appointed Chairman of the company, but owing to the date of this meeting having been altered, Mr. Bentley, owing to a prior engagement found it impossible to be present. He (the Chairman) could not tell them any more about the property than was contained in the reports; but Mr. Bowden and Captain Richards were present to answer any questions. He might, however, state that the funds in hand were just sufficient to pay the costs due on Saturday. He moved the adoption of the reports and balance-sheet.

Mr. HENRY WILSON, in seconding the motion, said it was a matter of regret that at so critical a period of the company's existence such a few of the shareholders took sufficient interest to attend the meeting.

Mr. WELD said there was no charge in the accounts for the directors' fees. Was it to be understood that their claim for fees was entirely waived? He noticed that the auditors' fees appeared at 20 guineas, and it occurred to him that in the circumstances of the company some shareholder could be found to audit the accounts without remuneration. If nobody else volunteered he would be happy to do so.

The CHAIRMAN replied that the directors had taken no fees for a long time, nor did they intend to take any. The auditors' fees were fixed by the shareholders in general meeting. He added, in reply to Mr. Booth, that Mr. Willesford had generously agreed to reduce the royalty from 1-20th to 1-40th until the mine realised profits beyond meeting the working expenditure.

Mr. BAWDEN, in reply to a question, said the payment to the two agents and his share amounted to 8*l.* 5*s.* 6*d.* month.

After a little further conversation the motion was adopted.—The meeting was then constituted extraordinary.

The SECRETARY read the notice convening the extraordinary meeting.

Mr. WILSON formally moved "That it has been proved to the satisfaction of this meeting that the company cannot, by reason of its liabilities, continue its business, and it is advisable to wind up the same."—Mr. STEWART seconded the motion.

Mr. APSEY said he thought the directors ought to make a decided effort to raise the funds needed by the issue of debentures, so as to avoid the necessity of winding-up and reconstruction.

Mr. HENNINGSON asked what programme the directors had to offer.—The CHAIRMAN said that, supposing the resolutions were passed and confirmed, it would be suggested to sell the property and assets of the company to a new Limited Company, to be formed for the purpose of working the mines; the capital of the new company to be 30,000*l.*, instead of 24,000*l.*, consisting of 12,000 shares of 2*l.* 10*s.* each, upon which 2*l.* would be credited as paid, and that the balance should be paid as follows:—2*s.* 6*d.* per share on application, 2*s.* 6*d.* per share on allotment, and the balance as may be required by instalments of not exceeding 2*s.* per share each, at intervals of not less than three months. The first 2*s.* per share would give them 3000*l.*, with which to pay off any debts, and to provide the capital necessary to work the property.

Mr. STEWART asked what would be the position of those who might be unable or unwilling to subscribe any more money?—The CHAIRMAN said they with the rest of the shareholders would receive a *pro rata* return of something like 2*s.* a share out of the subscriptions to the new company. The scheme which he had shadowed forth had been carefully considered by the directors in consultation with the solicitor, but it was for shareholders to suggest any other mode if they thought fit to do so.

Mr. WILSON remarked that 12 months ago the position of the company was so bad that winding up seemed inevitable, but since then the mine had improved at every point, and surely this was not the time to abandon it.

Mr. BAWDEN said they had 70 tons of copper ore ready to sample, and about 80 tons of arsenical munda nearly ready for sale, and these ores would nearly meet the current costs. The cost-sheet now about due had been provided for.

Mr. BOOTH said well if the manager would tell the shareholders his opinion of the prospects of the company.

Capt. RICHARDS, in reply, said his opinion was that they had a very good property in prospect. They had passed over a lode for 30 fms. in length, and it had been productive all the way more or less, and his belief was that in the 120 fm. level they were on the top of a vast course of ore in addition to what they had in the 104 fm. level, and he strongly recommended the shareholders to raise the money necessary to sink the shaft on it. They ought to sink 15 fms. deeper before driving another level, and this would take them 7 or 8 months; but in the meantime they would probably get a good discovery in the shaft, which would assist the further sinking below that point. As soon as they began to drive at a depth of 135 fms. he was confident that they would get into ore equal to that which they now had in the 120 west, which was now producing 2 tons of copper ore and munda to the fathom. There was also the 120 east and the 60 west, while the slopes in the 104 would more than meet the cost of taking the

COPPER IN NEW SOUTH WALES.—The Great Cobar Company raised, during 1883, 19,000 tons of ore, and smelted 18,096 tons, producing 2401 tons fine copper, value 158,464*l.* The total quantity of ore raised by this company, since it started in July, 1876, is 98,916 tons, which produced 13,388 tons of fine copper, valued at 858,464*l.* and it is estimated that there is sufficient ore in sight to keep the mine in full work for the next 25 years. The deepest shaft in the mine is 552 ft., and the deepest level is 324 ft., and the width of the lode is 60 ft. From the Great Central Company's Mine 1139 tons of ore raised in 1883 made 187 tons of copper, value 8700*l.* Total ore raised since starting in April, 1882, was 1551 tons; ore smelted, 1148 tons. There are in this mine nine shafts, the deepest 120 ft. The deepest level is 120 ft., and the width of the lode is from 3 in. to 11 ft. At the Nymagee Company's Mine 10,236 tons of ore was smelted in 1883, producing 1714 tons of fine copper, value 96,000*l.* The depth of deepest shaft is 390 ft.; deepest level, 310 ft.; width of lode, 8 ft. to 18 ft. The total quantity of ore smelted since the mine was started in 1880 is 23,007 tons, making 3717 tons fine copper, value 236,100*l.*

tuff away there. The prospects were very good of reaching deposits which would pay them well indeed.

Mr. FROST: If the property belonged to you, what price would you sell it for?—Capt. RICHARDS: I would not sell it at all. I would work it.

The CHAIRMAN, in reply to Mr. WELLS, said that the property could be sold for 24,000l. in shares in the new company and 8000l. to be subscribed capital for working the property, if the shareholders considered that the better plan. In any case, a scheme would be carefully considered, and be again submitted to the shareholders at the confirmatory meeting.

Mr. HAY suggested that the new company should consist of 12,000 B shares, which should be given to the existing shareholders, and 3000 A, or preference shares, which should be given to those who subscribed the new capital.

Mr. BARBER (solicitor) pointed out that the details could be considered after the resolutions were confirmed. The expenses of the liquidation and reconstruction would probably be less than 2000l., including the stamps. Probably the best plan would be for the directors to consult some of the large shareholders as to the reconstruction of the company.

Mr. BAYNARD said he had always entertained a very high opinion of the property, and he had never deviated from that opinion. A year ago, however, he felt nearly checked, and could hardly advise the shareholders what to do; but within a few days of that time rich discoveries were made in the two deepest points in the mine, in such a strata as to leave no doubt in the minds of the agents that they were in something very good indeed. Since that time the company had sold over 2000l. worth of ore from those points, and for the last two months the sales had been within about 70l. of the cost. He agreed with Capt. Richards as to sinking the shafts and driving the next level at a depth of 135 fathoms. The lode had gone down, worth 4 tons of ore to the fathom for over 30 fathoms, and this had never been touched. The discoveries in the 104 and 120 fathom levels were made at about the same time, and a communication was effected between the two levels. Since the company commenced operations they had stopped 84 fms. 1 ft. 6 in., and the winz had been driven over 15 fms., making about 100 fms. of ground taken away. From these 100 fms. the ore taken had realised about 15l. per fathom, which was a very good return. They had found the lode to the west of the counter, and there was every probability that it would become more profitable as it went further west. Had the price received by them for their copper ores been equal to what it was four years ago, the workings at the present time would leave a very fair profit; but although the stocks of copper were 9000 tons less than they were a year ago, the price was also lower. Such a state of things could not be expected to continue.

Messrs. Allen and Langton were appointed liquidators.

After some further conversation the resolutions were adopted, and a cordial vote of thanks was passed to the Chairman and directors and all the officers of the company.

NEW CARADON MINE.

The ordinary general meeting of shareholders was held at the offices of the company, Gracechurch Buildings, on Thursday, Mr. J. Y. WATSON in the chair.

Mr. C. B. PARRY read the notice calling the meeting, as also the minutes of the previous meeting, which were duly confirmed.

The agent's report is as follows:—"In presenting you the following report I scarcely think it necessary on the present occasion for me to write a detailed account of this mine, having in former reports stated its position with regard to the mines in this neighbourhood, which yielded such large profits, together with the length and width of the sett, number of known lodes passing through it, &c. In my report for the last general meeting I recommended the driving of cross-cuts to ascertain the size and character of the lodes at the 50 fm. level. This has been partially carried out in the past quarter with, I am pleased to say, highly satisfactory results. By going east of the shaft, and cross-cutting north, we have intersected the lode I referred to in my report for the last meeting as No. 1 lode, and which is much disordered about the main cross-course, in which the shaft is sunk, but where we have found it away from the influence of the same it is larger and better defined, and producing more copper. We are now driving east on the course of the lode. It is from 3½ to 4 ft. wide, composed of peach, spar, &c., producing saving work for copper, and the best of the lode is in the bottom of the level, and I feel quite justified in recommending the sinking of the shaft without delay. This lode should by all means be seen deeper, as from its present appearance it can hardly be said to prove very productive for copper ore. We are also cross-cutting north at this or the 50 fm. level, at a point about 60 fms. west of the shaft, to intersect the lodes which we have in the 20, but which have never been seen at this level. As you have been advised, these lodes contain a little copper at the 20, and as we are now 30 fms. deeper, and the ground is of a more favourable character, I expect the lodes will show a considerable improvement at this level. The water-wheel continues to work well, and the pitwork, &c., is all in good order; and it would be difficult to find another mine of such promise that could be more cheaply proved than the New Caradon.—N. RICHARDS.

The accounts showed assets over liabilities 103l. 16s. 7d.

The CHAIRMAN explained that, although the accounts showed assets over liabilities, it was because they had taken credit for a sum of 250l. for bills receivable which had not been met. At the same time, however, the secretary held 1000 shares of the debtor as security against that 250l. He (the Chairman) had done everything in his power to get the money paid as well as to get in the calls in arrears, for as a holder of 1000 shares he had regularly paid his calls, and did not like finding money for those who did not pay.

Mr. SIMMONDS referred to an item in the account of "unpaid calls, 256l.," and asked what was being done with regard to getting that in?

The CHAIRMAN, in reply, stated that everything that they could do was being done, and, in reply to a further question, said the names of those who were in arrears were on the table; from this list it was seen that two of the committee of management were among them.

This gave rise to some discussion, in which surprise was expressed by the shareholders present that these committeemen, who ought to have shown an example to the general body of shareholders, were thus in arrears.

Mr. DONNET then moved that the report and accounts be adopted, and that they be printed together with the proceedings of the meeting, and circulated amongst the shareholders.

Mr. TOMLIN seconded the motion, which was carried.

Mr. SIMMONDS then moved, with a view to getting in the arrears of calls at once—"That the secretary be instructed to take immediate steps to get in the calls in arrears." He thought that they should proceed against those who would not pay up.—Mr. B. WHITE seconded the resolution, which was carried unanimously.

The CHAIRMAN then turned to the question of the future. The mine would cost about 80l. a month for working. They wanted to sink the shaft another 10 fathoms, from the 50 to the 60. There was the amount of merchants' bills against them, but that was covered by the calls in arrears.

Mr. TOMLIN moved that a call of 1s. per share be made, payable on or before Nov. 15, and that a discount of 5 per cent. be allowed on all calls paid before that date.—Mr. SIMMONDS seconded the motion, which was carried.

The meeting then terminated.

SOUTH DEVON UNITED COPPER MINES.

The ordinary general meeting of shareholders was held at the offices of the company, Austin Friars, on Thursday, Mr. H. R. PATTISON in the chair.

Mr. F. R. A. FRANKLYN (the secretary) read the notice convening the meeting.

The CHAIRMAN, in moving the adoption of the report, said he could not say that he had a pleasing duty to perform, because it was quite clear that where there had been no commercial success in the City of London there could not be any pleasure in bringing before shareholders details of transactions which did not show a profit. It was a disappointment to all, and to none more so than the directors. But the ill-fortune which had overtaken this company had also befallen a great many other similar enterprises. Of course this was no consolation, but it showed that others had suffered from the same cause—the low price of copper, which had rendered the continuation of enterprises like this a matter of great difficulty. If the price of copper had been higher the directors would have been able to show a much better state of things. The difference between the unit of copper at 15s. and at 10s. made the difference between profit and loss. In addition there had been, since the last meeting, a deficiency of water, which had led to a great loss. They had proved that they possessed a good mine in the locality, from a mining point of view, but not from a commercial point of view, because, as a commercial venture it had hitherto been a failure. There were no more funds with which to carry on explorations, or the continuance of works which might result in success. The directors had exceeded the means with which they had been entrusted, and the 3000l. which the directors had provided had also been expended in a way which was highly advantageous to the company as regarded the position of the mine. The latest reports were increasingly satisfactory, and left little doubt that with more capital, and an earnest prosecution of the mine, the property might be brought into a paying condition. In fact they were now working at a loss of only 80l. a month. It was a tempting state of things to go on, but they could not go on unless further funds were provided. He moved the adoption of the report and accounts.—Mr. HONOR seconded the motion.

Mr. MATTHEW ROBINS suggested that a verbatim report of the proceedings should be printed and sent to each shareholder.

The CHAIRMAN said this should be done.

Mr. MATTHEW ROBINS then proceeded to pass some strong criticisms on the management of the company both at London and at the mine. During the time which had elapsed since last December the directors had spent 12,165l., and had only sold ore to the amount of 6178l. The net loss had been 300l. per month. He reiterated the complaint which he made at the last meeting relative to Capt. Hooper, and said that the directors had been most unfortunate in their selection of Capt. Hooper to manage the mine. He believed that the mine was a good property, and he attributed the bad results, not so much to the low price of copper, but to the utter inefficiency of the management. He moved a resolution to the effect that the company be wound up; but, before taking the resolution of the shareholders on that point, the shareholders should be placed in full possession of the position of the company, that the report be not adopted, and that a committee be appointed, with power to obtain such legal and other assistance as may be necessary, and to report the result of their investigation to a future meeting, to be held within four weeks from this date.

Mr. BROOKES seconded the motion.

Mr. SHERRWOOD said that he had taken debentures on the understanding that there should be a change of management. He expressed his strong dissatisfaction with the management at the mine, and urged the shareholders to insist on some alteration being made. He should vote against the report being adopted.

Mr. PETER WATSON said the directors had frankly taken the largest shareholders into their confidence, and had worked in every way they possibly could to improve the position of the company, and make it a paying concern. As regarded retaining Captain Hooper,

after the expression of opinion at the last meeting the directors advertised for a manager, and they had several applications, but there was not one applicant whom the board considered competent to undertake the management of this mine. Therefore the matter went on under the management of Capt. Hooper, who, it was right to mention, had resigned his office, but who continued as a favour at the request of the directors. The costs had been cut down more than half. The directors had advanced part of the 5000l. on debentures, and had also subscribed a further 3000l., which had brought the mine into its present promising position. They had sunk a new shaft down from surface down to the 120 fm. level. He could safely say that the directors had no fault to find with Capt. Hooper in the development of the mine and the sinking of the shaft. He had brought it down from surface to below the 125 within 18 months' time, and he challenged any man to show where a similar shaft had been sunk to the same depth in a similar time, and now it was in a good course of ore. As the Chairman had said, the price of copper had been against them, and there was scarcely a copper mine in Devon or Cornwall which was doing any good. The directors had done their very best to make this mine a success, and the loss had been reduced to about 50l. per month.

Some further discussion took place of no public interest, and some of it rather personal in its character, and then the amendment of Mr. Matthew Robins was put and lost only, one hand being held up in favour of it, and that hand being only the proposer.

The original resolution for the adoption of the report and accounts was then put and carried unanimously.

Mr. H. CATTLEY STEWART moved that the election of Mr. Moody to a seat at the board be confirmed. He condemned the tone of the discussion, and expressed his belief that the directors had done their best to make the company a success in the face of the greatest difficulties.

The motion was seconded and carried.

Mr. Pattison and Mr. Hobson were re-elected directors, and the auditors were re-elected.

The meeting was then made special to consider the desirability of winding up the company.

Mr. PETER WATSON explained the details of a plan for raising money, which he said would meet the approval of the board, and Mr. Bladen also submitted a plan which differed slightly in its details from that of Mr. Watson. In the end it was decided that between now and the confirmatory meeting a scheme should be sent round to the shareholders, who would be asked to express their opinion upon it at the confirmatory meeting.

The resolution for winding up the company was then passed, and the meeting broke up after a vote of thanks had been passed to the Chairman and directors.

SOUTH TOLCARNE MINING COMPANY.

An ordinary general meeting of shareholders was held at the offices of the company, Great St. Helens, on Wednesday, Mr. CHARLES CLARK in the chair.

The SECRETARY read the notice convening the meeting, and the agents' report, which stated that since the last meeting the following work had been done underground. At the 70 fm. level they had driven a cross-cut south through the Flat lode, which was found at this point to be 18 ft. wide, near the south wall the lode produces some good tin stones. They had also driven east and west on its course. The western end is driven 9 fms. 4 ft., and produced some good stamping work. In the present end they had a great change in the nature of the lode; there is now a good tin stone, and a great quantity of tin. They had driven a cross-cut on this as rapidly as possible, believing that it will lead to good improvement. East of the cross-cut they had driven 5 fms., carrying the lode about 6 ft. wide. On Fraser's lode they had raised and sold some very good copper ore, and worked several tin stopes. These they had to stop, owing to the low price of tin. The Gosson shaft had been sunk from 35 to the 46, and they had driven east on the lode 2 fathoms. The lode is 18 in. wide, but at the present time disordered. They expect to drive 20 fathoms or more to get under the rich ore ground worked in the 36 fm. level above. From the back of the 36 fm. level they had raised and sold 7500l. of rich copper ore and a little tin. They had driven a cross-cut south from the 36 to 20 fathoms, but had not as yet intersected any lode. In Taylor's workings they had sunk a winz to the 24, communicating with the cross-cut of that level. The lode had maintained its size, and is now worth for tin and copper from 10l. to 12l. per fathom. They were driving west on its course, and found it from 2 to 3 ft. wide, and of the same value. Owing to the falling off in value of these workings since the last meeting they had been unable to return as matters stood in the way they had anticipated. As to the future working, if they were allowed to follow the lode in the western ground, and if the 80 fm. levels west be (the agent) should recommend that these points be pushed on vigorously, that the workings on the flat lode be continued in the 70, that a cross-cut south be driven in the 80 to intersect the flat lode, that the 46, on the Gosson lode, be driven east and west of shaft, that the cross-cut south in the 36 be continued, and the 24 end west, on Taylor's lode, be continued. Since the last meeting the total sales of copper and tin had realised 1932l. 2s. 11d.

The CHAIRMAN then said it was with sincere regret that the committee placed before them the very depressing financial statement, a copy of which had been handed to each shareholder present; but discouraging as it was he must ask them to accept it, and he proposed that the accounts be adopted. He then went on to say—Our last meeting you will remember was held on May 21. We then passed the accounts to March 22, showing a balance against the mine of 3008l. 16s. 8d.; but we then postponed the question of making a call, agreeing to hold the next meeting in this month of October, and resolving that the position of the mine must and would then be fully faced. In pursuance of that resolution they met here to-day, and unquestionably it was a very serious state of affairs that they had to face, though serious it was no means desperate he thought, for if they would look at the printed statement in their hands they would see that only a small portion of the adverse balance had been incurred since they were last there together, and more than one-fifth of the 6000l. standing against them was to be assigned to a cause quite unconnected with the mine. They carried forward in May, as he had said, a balance of 3008l. 16s. 8d.; but before they left the room they increased it nearly 50 per cent. by writing off the unpaid calls on the 1433 shares which had been forfeited through the dissolution of the larger shareholders. Moreover, they had at that time paid the labour costs, and become liable for the merchants' bills to April 19 and May 17, and they were committed to those for June 14, so that it was only in the four weeks ending July 12 that they were able to begin making the reduction to which they had pledged themselves. If they would take out the figures from that date they would find that the labour costs amount to 1610l. 6s. 5d. and the merchants' bills to 337l. 14s. 2d., giving an aggregate of 1948l. 0s. 7d. for the four months, or an average of 487l. per month. The sales for the same period amount to 1932l. 2s. 11d., but some allowance must be made for this for ore brought to the surface previously, and if we call the sales 1500l. we shall be pretty near the mark. This leaves a loss on the last four months' working of 448l., or an average of 112l. per month—a result not bad in itself, but very different from what they expected. They had, indeed, hoped for much better things; for, though Capt. Jennings had told them they must be prepared for a loss of at least 500l. a month, both he and they thought that they would at least be able to pay expenses, and probably to carry something to the good. In regard to copper, their expectations had been more than realised; but, unfortunately, tin had failed them, and although they had excellent indications at various points in the mine, and every hope of soon again finding tin in paying quantities, they had to confess to present disappointment. In the early part of July they had asked Captain Rich to inspect their mine, and it was very satisfactory to know that in no essential point did he differ from them in the manner they were working. The exploratory work was also very satisfactory. The Flat lode might open out at any moment very richly, but, of course, capital was needed to properly develop it. The Chairman then read several letters which had passed between him and the agents of Sir V. Vyvyan. In reference to a proposed plan agreed upon by the directors of the South Condurrow and South Tolcarne working towards each other upon the lode and joining for their mutual benefit. The result of this correspondence showed that, after considerable delay, they had obtained Sir V. Vyvyan's refusal. This had been once more appealed against, but no answer had been received. The Chairman further explained how both personally in Cornwall, and by letter, he had done all he could to bring about the desired end, and stated that they were deprived of an income which they might at this time be enjoying, and that by the action of their own landlord. He also referred to a letter report in a Cornish paper to the effect that the South Condurrow Company were endeavouring to bring about the suspension of the South Tolcarne Mine.

Mr. FRASER MACKINTOSH, M.P., seconded the resolution, saying that he had not lost faith in the mine. They were about to make a large call it was true; but it would be foolish for any shareholder to go out of it just when, as he thought, with a little more working it could be made to pay.

A long discussion then ensued. Capt. JENNINGS, the agent, answering questions, and explaining the workings on a plan.

The CHAIRMAN then proposed that a call of 30s. per share be made, payable during the next six months, which was seconded by Mr. BURCH, and carried.

Messrs. Charles Clark, O. Fraser Mackintosh, and Thomas A. Meates were re-elected as the committee of management.

Mr. BURCH then moved that the best thanks of the meeting be conveyed to the committee of the South Condurrow Mine and Mr. Pendarves for the cordial disposition shown to assist them, which was seconded by Mr. W. C. MEATES, and carried unanimously.

The usual vote of thanks to the Chairman brought the meeting to a close.

MID-DEVON COPPER MINING COMPANY.

An adjourned ordinary general meeting of shareholders was held at the offices of the company, Finsbury-pavement, yesterday, Mr. THOMAS NICOLLS ROBERTS in the chair.

The MANAGING DIRECTOR read the notice convening the meeting, and the report of the directors stated that soon after the last meeting the directors felt it their duty to suspend sinking the main shaft, owing to the action of the lessor, whose lease expires at the end of 1885, and who required such conditions for a renewal of the lease that they felt they could not accede to it. Although the matter had now been arranged, the delay has been so protracted in arriving at an understanding that little has been done in the way of sinking. The shaft is down within a few inches of 50 fathoms, at which point the ground is easier than it has been since the resumption of the sinking in October last. The 50 fm. level had been extended 5½ fms., the amount reserved for the ore, and about balancing that paid for wages. The upper levels had not yielded ore in sufficient quantities to meet the expenses of sinking, and it will be necessary at an early date to submit to the shareholders a proposition to raise further capital to enable them to continue their efforts to reach the 100 fathoms, and thoroughly explore the lode at that depth, which they believe will issue in results most satisfactory to all interested in the mine. The directors will appeal with con-

ference to the shareholders to assist in bringing their property into a paying condition.

The CHAIRMAN said the directors had had very considerable difficulty in arranging the matter of the renewal of the lease, which was one of the legacies left to increase their other difficulties by the former management; but after a great deal of negotiation, in which his friend and colleague, Mr. William Hall, had taken an active part, they had been able to bring the matter to a successful issue. It would be observed that the report stated that the directors did not feel justified in incurring any expense whatever so long as there was any difficulty possible as to the renewal of the lease; but that difficulty having been happily got over, the shareholders were informed in the report that it was the intention of the board to apply to them to raise a further amount of capital, in order to prosecute the sinking vigorously, and he might say that in anticipation of such subscription of capital they had given orders to the captain to go on with the sinking of the shaft. He had just received a letter from the mine, in which the captain said that the sinking of A shaft was resumed on Wednesday morning by six men, and that he had engaged all the men for Monday next, and that every exertion should be put forth to get the shaft down as quickly as possible. Having in view what the report stated, he really did not think there was anything further to be said; but he would be happy to answer any questions. He proposed to go into the matter more fully when the shareholders were called together to consider the question of the desirability of raising fresh capital, and the directors would take steps to inform them on that matter at the earliest possible date. He moved the reception and adoption of the report.—Mr. JOHN GOULD seconded the motion.

Mr. OLLIVER asked how long it had been known that there would be a difficulty with the lessor with regard to the renewal of the lease?—The CHAIRMAN replied that for rather more than six months the probability of difficulty had been known—certainly since the meeting in February.

Mr. OLLIVER said that seemed to show that the directors did not know all about the affairs of the company.

Mr. GOULD pointed out that the directors could not actually say any difficulty would be raised until application was made for the renewal of the lease.

The CHAIRMAN, in reply to a question, said the old lease expired on Dec. 31, 1885.

Mr. HALL said the directors before endeavouring to obtain more capital thought it right to try and secure a longer lease, and they had succeeded in obtaining a renewal for 20 or 21 years on the payment of a premium of 1000l. and an additional rent of 5l. a year. They had secured leases for the separate portions of the mine, which gave them all the property they required for 21 or 21 years.

The motion was then put and carried.

The meeting closed with a vote of thanks to the Chairman and directors.

LANGDALE'S CHEMICAL MANURE COMPANY.

The report of the above company for the 15 months ended Sept. 30 has just been issued. At the last general meeting it was decided that for the future the accounts should be made up to Sept. 30 instead of June 30 in consequence of the development of the company's foreign business and the necessity of holding large stocks on June 30. The general meeting is to be held on Nov. 7, at Manchester. The report shows that for the 15 months the net profit was 13s. 5d., which, together with 460l. for dividend on 3500 shares held by the company, makes a total of 15,101l. 11s. 8d. for appropriation. The directors recommended the payment of a dividend of 3 per cent. on the capital of the company, which will absorb 5238l. 12s. 10d. be appropriated to depreciation on land, buildings, plant, &c., and that 6513l. 18s. 3d. be carried forward. The following table prepared by Mr. B. N. CHALLONER, stock and share broker, Grey-street, Newcastle-on-Tyne, shows the progress of the company during the past 15 years—

Year ending June 30.	Gross receipts by sales.	Net profits.	Total amount available for distribution.	Dividend per cent.	Amount paid in dividends.	Balance carried forward.	Value of stocks in hand.
1875	165,379	10,497	Nil.	Nil.	Nil.	57,894	48,261
1876	163,727	10,909	Nil.	Nil.	Nil.	53,883	37,742
1877	165,916	14,707	Nil.	Nil.	Nil.	51,564	50,000
1878	157,557	12,526	2½	4365	8,160	39,507	36,669
1879	131,129	5,481	14,167	2½	4365	9,827	36,669
1880	141,132	628	11,312	2½	4365	6,947	33,169
1881	146,364	4,587	12,417	3	5238	7,178	31,668
1882	157,588	9,223	13,832	4	6981	6,851	30,000
1883	157,863	7,367	15,055	4	6981	8,074	29,000
1884	193,463	5,816	15,101	3	5238	6,513	28,000

The loan from the Bank has been reduced by 25,833l. since 1875. The amount carried forward—6513l. is equal to a dividend of about 3½ per cent. on the capital of the company. In the beginning of 1878 the capital of the company was reduced by 75,145l. 18s., which amount was appropriated by writing off 29,855l. 5s. 11d. Balance of goodwill paid for, 13,564l. 19s. 5d., difference between par value and market price of 3000 shares which became the property of the company, 2724l. 18s. 2d.; bad debts, 3450l.; erroneously charged to capital account, 885l. 10s.; legal expenses for arbitration, 4990l. 5s.; depreciation of Monks Works, 2500l.; depreciation on St. Lawrence Works, 13,375l.; market value of 3000 vendors shares. The share capital of the company at present stands at 174,596l. 17s.

JOHN BAGNALL AND SONS.—At a meeting in Birmingham, on Tuesday, to receive the report of the liquidators (referred to in last week's Mining Journal), and to consider a scheme for the reconstruction of the concern, Mr. E. Gem presided. The report of the liquidators having been taken as read, the Chairman said that he trusted that the state of affairs shown in the report which had been submitted to them might satisfy them, if anything could be satisfactory in such a sad concern as that of Bagnall and Sons. In pursuance of the policy they as liquidators had felt it their duty to follow—to do as quickly as possible concentrate the business, and retain only such portions of it as could be managed efficiently—they had sold a considerable amount of property. They had seen by the report that the gross profit of the past two years was 11,737l., and that the liquidators had had to pay 4628l. in interest on the debenture debt and the mortgage debt. The available profit was thus reduced to 7111l. They had made improvements in the method of production, which had told very much in their favour, besides beating up all the old connections of the firm, which had also had beneficial results. The object of that meeting was to consider the report of his brother liquidator and himself, and their proposal to reconstruct the concern. They believed that it would be as productive as they had set forth in the report, and the capital necessary for the purpose of reconstruction would be very small compared to the business they hoped to do. They would not be crippled, and they believed they would be able to work very efficiently, and without any need of more capital. Of course, they should take the earliest opportunity of reducing the 10,000l. mortgage debt to the second mortgage, and the 10,000l. to the Bagnall trustees. When that 20,000l. was free, it would come into the hands of the liquidators to deal with and to enlarge their business, and they had every hope that the shareholders, under favourable circumstances, would be able by the scheme of reconstruction to recoup the losses they had sustained.

Mr. Banks said that while the liquidators told them in their report that they had been acting in the interests of the shareholders, the promise of Mr. Hickman made on the date of the liquidation that 15,000l. or 20,000l. would come from the carcass of the concern had been entirely done away with, and the result of the two years' operations of the liquidators was a profit which they were to share with the shareholders, but who were to have the mortgages. The dyings peech of the company (that was to say, the report now presented) told them that the shareholders A and B subscribed through the influence of Albert Grant and Sampson Samuel Lloyd—those gentlemen who were connected with the promotion of the company—so large a sum of money in the first instance as 180,000l.; but afterwards, when they got possession of their property, they discovered that it was not so good as they had hoped it would be, they were content to wipe off 7l. of the 10l. shares from the capital account, and had induced at the same time, by the substantial character of the matter at the end of the affair, to bring in another 40,000l. The total was a very short one. It took nine years to bring this manufacturing company to liquidation, and the result of that liquidation was that 200,000l. was entirely swept away, and the directors told them that, whereas while they were managing the concern as directors they could not produce a profit, they were able to show one when it went into the dark tunnel of liquidation. In reference to the proposal for the reconstruction he deplored that there was not some better legislation upon this subject, quoting an extract from the Stock Exchange Year-Book, to the effect that it would be well to put the liquidation of companies under some sort of commission, with power to work back to the founders when the circumstances indicated fraud or imposition. The shareholders came in blindly once, why should they do so again?—Mr. A. Hickman said he did not share the views of Mr. Banks. Concerning reconstruction, he was sanguine that, should the present management be continued it would prove a substantial success.—Mr. Bagnall explaining why Mr. Hickman's prediction of a 15,000l. or 20,000l. surplus had not been found, contrary to expectation, to have been got, and that whereas the works were valued when the prediction was made at 30,000l., their value was now put down at 20,000l.—Mr. Eagleton moved—"That the report of the liquidators, and the proposed scheme for the reconstruction of the company, be approved, and that the thanks of the meeting be given to the liquidators for their exertions."—Mr. E. J. Lloyd seconded the motion, which was carried.

PLYMOUTH, DEVONPORT, AND DISTRICT TRAMWAYS COMPANY.—The directors' report and statement of accounts prepared for the forthcoming meeting have been issued to the shareholders. The balance-sheet shows a balance in hand of 49l. 5s. 9d. They have report the directors state that they regret to announce that they have been unable to open the line for public traffic from circumstances over which they have had no control. At the meeting in January it was expected that the line would be ready for the official inspection in March or April, but owing to certain alterations which had been found necessary a delay of some four months had occurred. In the early part of July the sections Nos. 1 and 3, and the authorised portion of No. 4 were completed. On the 11th of that month the Board of Trade Inspector inspected the line and required the line to be doubled in certain parts before he would grant a certificate. In addition to this and some other objections he was unable to certify for the use of mechanical power over portions of the No. 1 line, where the struts were narrow and the gradients steep. Negotiations are still pending with a view to the modifications of the requirements.

of the Inspector, and for removing the objection to the use of steam-power. The company, owing to small amount of capital raised, has only been enabled to lay down 1 and 3 and part of 4, these being wholly in Plymouth. This has been condemned by the corporation of Devonport, who refuse to consent to the opening of the completed portions of the line in Plymouth, although they have been assured that as soon as sufficient capital is raised the lines as required by them shall be completed. The directors think this action arbitrary in the extreme. The Bill for extension of time to finish the tramways received Royal assent on Aug. 7, but this extension will avail but little unless further capital is subscribed. The accounts have been audited by Messrs. Price, Waterhouse, and Co.

TINCROFT.—At the four-monthly meeting on Thursday (Mr. W. Teague, the purser, in the chair), the labour costs were £8537. Merchants' bills £1897, and the total expenses were £7780. The tin sold amounted to 147 tons, and realised £2327. Other receipts increased the credits to £3067, a loss in the working of 14737, and increased the debit balance to £4777. A call of 5s. per share was made. The agents' report stated that the new side lode at the 222 mentioned at last meeting was opening up satisfactorily. All their efforts had, therefore, been concentrated upon the 222. The 222 was driven 8 fms. east of the cross-cut, lode 6 ft. wide, and worth 54. per fathom. West of the cross-cut they had driven 9 fms. on a side lode, producing some splendid stones of tin. They had communicated the vein from the level to the 234. A cross-cut was started at the 246, and they hoped to cut the lode in 8 fms. further driving. The 253 on the Highburrow lode was worth 404. per fathom. Mr. Clinton said that if tin had not declined they would not have required to make a call. They did not, but notice the admirable manner in which operations were being conducted. The Chairman said if ever there was a time when the management, and those who conducted the affairs of the mine, wanted their hands prompted, this is the time. Referring briefly to the tin trade, and saying that there were large supplies from the Straits this month, he also said: The deliveries of tin this month have been enormous. We have seen things quite as dark as to-day, and there was a revival in the tin trade. Nothing would be more satisfactory to me at present than to keep the price of tin where it is. Trade will, will, and perhaps earlier than the tin people may think. We have cut through the lode in Carn Brea, and found most people may think. It is not such a big lode, but, if rich, is sufficient. It is about 7 ft. wide. The lode in Carn Brea was only from 4½ to 5 ft. wide, and it was the richest I have seen in this or any other district. Altogether the lode has turned out well. If the discovery only continues as it is we shall have better days in Carn Brea.

GOLD EXTRACTION.—At the meeting of the Balloon Society yesterday evening, a paper "On some Modern Processes of Gold Extraction" was read by Dr. ROWLAND J. ATCHERLEY. Reviewing the conditions under which gold existed in its matrix, and the difficulties presented by its economical extraction, the author said—First, it may occur as coarse metallic gold, more or less nuggety in character; secondly, it may occur in a finely divided state, suspended in water; thirdly, it may exist free, but each grain coated with an adhesive film; fourthly, it may be found in chemical or most intimate mechanical combination with mineral of a certain class. Under the first of these conditions there is little difficulty in saving all the gold; but, under the second, it is necessary to employ mercury to catch up the fine particles; and here a certain loss occurs, more or less according to the efficiency of the plant and the degree of subdivision of the mineral. The third condition is the most difficult, for the gold cannot be attacked by the mercury until the film is removed. But the fourth condition is a very complicated one, for the gold refuses to amalgamate to any extent with mercury, while the elements associated with it exert a most baneful influence, themselves combining with the mercury, and thus rendering it entirely unfit for the purpose of amalgamating the gold. Thus a great loss is entailed both from the failure to extract the gold and from the mercury used in trying to do so. To obviate these losses a very high percentage of gold metal is required. While in certain well-known cases a very high percentage was extracted at a profit, they were the exception, and not the rule. Hitherto the question has been not so much, "Can we get out all the gold?" but "How much can we get out at a profit?" The question, the author went on to say, he would have them consider was, "Can we not save all the gold at a proportional profit?" Describing the tendency of fine gold to float upon the surface of water, he explained a method for saving this gold, which had been found most efficacious, yet for some reason had been discontinued, which consisted in a number of troughs inclined at a slight angle, and having the bottom covered with amalgamated copper plates thickly studded with square iron pegs, over which were placed amalgamated copper caps in such manner that their corners were presented to the current. Following up this conception, and noting the difficulty of bringing the gold to the mercury, an apparatus has lately been constructed which, instead of seeking to bring the particles of gold to the mercury, brings the mercury to the gold. It consists of a series of perforated troughs placed transversely over an inclined box, the bed of which is grooved with a large number of longitudinal V cuts extending from directly underneath the first trough to the mercury well at the far end of the apparatus. The bottom of this mercury well is in communication with the base of an archimedean screw, which raises the mercury to the trough, above whence by means of regulating cocks it is distributed into the perforated troughs, and runs down the box and over the mercury well to the concentrators beyond, being deprived in their passage through this zone of mercurial rain of every particle of electro-chemical action. Thus an enormous mercurial surface is attained, and the mercury penetrating in innumerable columns the very substance of the pulp, is compelled to come in contact with everything liquid or solid contained therein. At a recent trial with an amalgamating apparatus such as he had described, the author said a quantity of finely crushed quartz sand, together with a small quantity of leaf gold, was operated upon, and gave most satisfactory results. Upon reviewing the theories advanced by Bequerel and others on the natural deposition of gold from sea water by means of electro-chemical action, the idea originated that by similar action upon the smaller scale of industrial metallurgy the forces of electricity might be usefully employed in the extraction of gold. Experiments were consequently set on foot, but they encountered a great stumbling-block, for a secondary reaction took place, which they could not for a long time overcome. Hydrochloric and hypochlorous acids were evolved which precipitated the gold as fast as the chlorine brought it into solution. However, Mr. H. R. Cassel discovered the means whereby the electrolytic method of gold extraction from refractory ores can be successfully and economically conducted. The rationale of his process may be thus epitomized:—Nascent chlorine, from an aqueous solution of common salt, is evolved in contact with auriferous mineral, the gold being dissolved out and the refractory elements being maintained in statu quo by the addition of lime. Having discovered the means of separating the gold in solution it was necessary to devise the apparatus in which the reaction could be successfully and economically conducted. Experiments resulted in a machine which consists of a cylinder of suitable size arranged to revolve within a wooden tank, the cylinder being insulated from the tank excepting at the circumference of the former, which is constructed of porous material, and allows an electrical current to pass through it, when the entire apparatus is filled to the proper height with a saturated solution of common salt, and connected with a source of electricity. The interior of the cylinder constitutes the positive compartment, the tank containing a copper sheet, the negative. The auriferous ore is introduced by means of a hopper. As the drum revolves, chlorine is generated inside it, and a general disintegration takes place in the ore, which is continually thrown upon the carbon poles forming the anode, thus ensuring a most intimate contact. At the end of an hour the drum is stopped and a quantity of slacked lime is added, and the rotation continued. The extraction of gold is complete in about four hours; all that is requisite to be done is to empty the drum and separate the clear solution, either by decantation or filtration, when the gold may be precipitated, as in the ordinary chlorination process. The cost of such treatment the author estimates at 8s. per ton, or if the motive power is supplied free by water-turbine, a fraction over 6d. per ton.

TOLIMA MINING COMPANY.—Advices received by the mail of Oct. 27, of which the following is an abstract:—
Frisa August returns \$22,672.434
" cost \$20,675.34
Less charged in April 2,500.00 = 18,175.34
Estimated net profit \$ 4,497.144
Equal in sterling to 749l. 10s. 6½d.
The underground report shows..... Fms. Ft. In.
of ground expended, of which 75 3 2
was unproductive, leaving 61 3 2
of productive ground..... 14 0 0
The invoice represents 78½ tons of export ore of an average assay value of 220 ozs. per ton.
The superintendent states that the chief points of interest to note have reference to the vein in the 20 south-west level, which in driving has maintained an average yield of from 3 to 4 tons per fathom throughout the month of rich solid plumbiferous export ore. At the date of writing, however, the ore in the end is reported of somewhat inferior quality, and contains a greater admixture of vein matter, whilst blende predominates. He adds:—In the sink under the sole of the 20, however, there is an improvement both in yield and quality as the sinking progresses, the vein containing an almost solid 14 in. rib of argentiferous plumbine, carrying free sulphides of silver throughout the length of the winze. The ground is hard, and on this account progress is somewhat slow. The western levels, and particularly the 60 west, are showing good indications, and at times good stones of ore are broken.
80 East.—The vein in the end is 3 ft. in width, composed of quartz and schist, and yielding small quantities of pyrites, but not of saving value.
80 West, South Wall.—The vein is 1 ft. in width, composed of schist interlaced with quartz, and carrying specks of blende on the footwall; a trial is also being made on the north wall, but the vein here is hard and poor.
70 East Rise.—This having holed into the Esperanza shaft sunk beneath the greater portion of the month was occupied in completing the communication, and in driving down the ends of the shaft, &c. The vein is large but poor for mineral at this point.
70 Drive, South-West from No. 2 Cross-Cut.—This drive which is being extended towards the north wall of the Bonanza vein at the 70 is following a small string of ore, which we hope will improve against the wall referred to upon 5 fms. beneath the 60, on the northern side of the Bonanza stope. This winze carries a branch of good quality mineral 4 in. solid.
Rogers' Winze.—East and west levels have been commenced from the bottom of this winze towards to communicate with the 80 east, and eastwards to prove the ground beneath the Bonanza workings with the object of ascertaining whether a productive vein reforms at this level. The east drive contains a small branch of ore on the footwall. The west drive is also mineralised on the same wall. A portion of the vein remains standing on the north wall, which is expected to carry ore. This will be proved later.

70 Bottom Stopes, West of No. 2 Winze.—The ore to the west of the winze and east of the engine-shaft, is less productive than previously, but we anticipate finding its continuance in former strength on its dip to the east of No. 2 winze, and over the back of the 80 east at this point.

70 West.—The vein in this end is 5 ft. wide, composed of dark blue schist and quartz, with good walls, and contains small leaders of pyrites and blende, with occasional traces of galena. The end is a little over 60 fms. distant from engine-shaft.

60 West.—Good progress is being made with this level, which is driven about 85 fms. from engine-shaft. The vein maintains its strength and promising appearance for ore, and is letting out much water. Yesterday a good 4 in. leader of quartz, largely charged with blende and pyrites, was struck upon the north wall. We are hoping to find a steady improvement here, and any day an alteration for the better as regards produce of mineral may set in.

60 Bottom Stopes, West of Shaft.—These have continued to return fair average crusher work, the estimated yield being about 25 to 30 cwt. per fathom.
Esperanza Shaft, and Bonanza Sink under 60.—These have been already referred to.

60 West Rise.—A rise has been commenced a few fathoms from the west end to prove the backs. No ore has as yet been met with.

40 West.—The vein is 5 ft. wide, composed of carbonate of lime (calcespar), quartz, and dark-colored schist, yielding occasional stones of mineral. The level is driven 52 fms. west of engine shaft to date. About 8 fms. behind the end a cross-cut has been commenced northwards upon a cross-joint with the object of proving the ground to the north of the main branch.

20 South-West.—This has been driven nearly 10 fms. beyond the western cross-course. A considerable portion of this distance was upon a vein yielding from 10 to 12 in. of almost solid good quality mineral, estimated at from 3 to 4 tons per fathom of 400 ozs. ore in the drive, and from 3 to 5 tons in the western backs. At date of writing the mineral is less solid however, and the ore of a more mixed and somewhat poorer quality, but still showing a good yield estimated at from 50 to 60 cwt. per fathom of 250 ozs. blendiferous mineral.

The stopes above this end will yield for about 1 fm. in height from 3 to 5 tons per fathom on the south-west section upwards in a vertical direction; the vein is poorer. On the line of the dip of the ore the vein has not been proved upwards. In the north-east extension of these stopes the vein is not so rich, but, nevertheless, fairly productive.

The winze being sunk near the north-eastern limit of the ore as seen in driving the 20 has considerably improved during the month, and now contains a 14 in. almost solid branch of 400 ozs. ore from end to end of the sink. The ore has gradually increased in width from 6 to 8, 12, and finally, at date of writing, to 14 in. May it still go on at the same rates.

Sabandja Mine.—I am glad to say that promising indications still continue in the 12 east from which rich quality mineral is frequently broken, and which appears to be more regular and concentrated in the sole than in the end. The 12 west is now also mineralised, and samples taken from this vein for assay last week yielded over 900 ozs. per ton, assays from the eastern level giving over 800 ozs. per ton. The western branch is now following a side branch to the south of the main level, which appears to have been driven on a weaker and poor part of the lode. The winze being sunk under the 12 is within a short distance of communicating with the 12 west on the side branch. Ore is occasionally seen in this winze.

The engine-shaft shows a promising mixture of ore on the south wall of the vein, and the lode is increasing in thickness. This mineral yields 250 ozs. by assay.
The lower adit is penetrating harder rock as cover is gained.

MINERS' BENEFIT SOCIETIES—THE MINERS' FUND OF NEW ALMADEN.

BY SAMUEL B. CHRISTY, UNIVERSITY OF CALIFORNIA, BERKELEY, CAL.

An abstract of this paper, which was read at the Chicago meeting of the American Institute of Mining Engineers, was published in the *Mining Journal* of July 19; it is now subjoined in full. At the previous meeting of the Institute several contributions were made to the subject of miners' aid funds. Such matters will always form important factors in the administration of large industrial enterprises. From the frequently remote and isolated position of mining properties it is a subject that often forces itself upon the attention of the mining engineer. Local conditions are usually so variable that no single method can be found equally well adapted to all localities. At the same time a study of different types is often suggestive and valuable, and it is with this in view that these notes are presented.

The Miners' Fund of New Almaden is a remarkably successful example of what may be done for miners by a wise and at the same time firm management, by simply directing their own efforts and without incurring any great expense to the stockholder—a practical consideration not without importance in most cases. The quicksilver mines of New Almaden are situated at a distance of 15 miles by wagon road from San José, the nearest town from which medical and surgical aid can be summoned. The great delay in case of accident and the expense in cases of long illness naturally gave rise to much difficulty in the early history of the mine. Physicians would charge a fee of \$25 for each visit; so that as a matter of mere economy it was cheaper to die than to fall ill.

In order better to understand the conditions of the problem, a word as to the number and nature of the population will be necessary. The total number of men on the company's payroll at the mine and hacienda (reduction works) varies from 400 to 700 men. The total population is estimated to vary from 1400 to 1600. The last school census showed:—316 children between 5 and 17 years at the mine; 105 children between 5 and 17 years at the hacienda. The total number of miners was estimated at 600. By far the larger part of this population resides at the mine in the so-called English Camp and Spanish Town, the rest live at the hacienda, all on the company's property. This population is largely Spanish-American. Nearly 75 per cent. are of this origin. Most of these are Mexicans; a few are South and Central Americans. About 20 per cent. are Cornish miners and their families; the other 5 per cent. are Germans, Swedes, and other foreigners, with a few Americans.

Two unsuccessful attempts were made to furnish efficient medical and surgical aid to the mine. The first attempt was made by the management as early as the fall of 1864 to secure the services of a competent physician. Each male adult at the mine was required to pay \$1 per month, in consideration of which he and his family were furnished with medical attendance and medicine. The whole sum collected was paid over to the physician who gave his whole time and furnished the medical supplies. Of course this innovation led to much opposition, complaints being made against the compulsory nature of the contributions; so that the scheme was abandoned after a trial of three months. From that time till the spring of 1870 the people were left to the tender mercies of local quacks, or were compelled to send to San José as before. At the period named the need of a change was so strongly felt by the miners themselves that a system of voluntary subscriptions was started among them. The plan this time was to pay over the whole sum to two competent physicians of San José, who agree to visit the mine every other day, alternating with each other; they also agreed to furnish all necessary medicines, and to come on odd days without extra charge in cases of emergency. This plan worked well at first, but dissatisfaction arose from the fact that many of the miners who were non-contributors still received nearly as much benefit as those who paid. By degrees, therefore, the number of contributors decreased until the fund became insufficient to pay the physicians; and so the second plan, that of voluntary subscriptions, failed.

The result of this experiment did much to convince the miners that compulsory contributions were necessary to make such a scheme a success; so that in the latter part of 1870, soon after the direction of the mine was assumed by the present manager, Mr. J. B. Randol, the miners were ready to petition that he assume control of the fund, and that contributions be made compulsory. After convincing himself that this was the wish of a large majority of the employees and residents, Mr. Randol established what is now known as the Miners' Fund, and assumed entire control as trustee. He has occupied this position for over 13 years without salary, and to his skillful management is due the high state of practical usefulness which the fund has reached in spite of previous failures. At the time he began the apparent future of the mine did not justify any additional expense on the part of the company; while on the other hand it was equally evident that the fund should be in such a position that it could offer sufficient permanent inducement to a competent physician for him to abandon his regular practice and become a resident at the mine. With these things in mind the organization was effected, the rules and regulations of which have since been modified from time to time, as experience under the peculiar conditions suggested. The rules and regulations now in force may be gathered from the following notice posted at the mine:—

MINERS' FUND.

This fund, instituted for the benefit of the residents of New Almaden, is established upon the following basis:—
1.—Employees of the New Almaden Mining Company, heads of families, and all other adults residing at New Almaden, each pay monthly into said fund, \$1. The money so contributed is held by Mr. J. B. Randol, trustee, to be paid out for the following purposes:—1. The salaries of a resident physician, and of a druggist,

and for the purchase of medical supplies.—2. For relief of contributors whom circumstances may entitle to the same, and for other contingent expenses.

II.—Contributors are entitled, without further payment, to the attendance of the resident physician for themselves and their immediate families (except that cases of confinement will be charged \$5), and will be furnished with medicines prescribed by him on payment of cost.

III.—When the fund is subject to any expense for relief of persons indigent, or otherwise—say, for medicines, nurses, or supplies—it will be regarded in the nature of a gift, or as an advance to be repaid as the trustee may decide to be just, considering the circumstances of each case.

IV.—It is expressly agreed that when the resident physician is called to attend any person not a contributor to the fund there shall be a charge of not less than \$5 for each visit to be paid into the fund, and to be charged against and collected from the head of the house where such non-contributor may be living.

V.—The trustee serves without pay, and in consideration thereof it is understood that the foregoing rules and regulations will be observed by all persons interested therein; and it is expressly agreed that all sums due, or to become due, to the fund by the contributors, or any of them, shall be a lien upon any property of the contributors at New Almaden, and upon any money due, or to become due, them for wages from The Quicksilver Mining Company, which money said company is authorized to pay over to said fund without further notice.

New Almaden, February, 1883. J. B. RANDOL, Trustee.

The peculiarities of the large Mexican element in the population necessitated many of the changes which were made in the rules of the fund as it was first established. For instance, at first no charge was made for medicines furnished. But it was soon found that the Mexicans would often draw medicines to double the value of their contributions whether they needed it or not. A friend of mine, recently physician on a Mexican railroad, where the Government requires that medical aid shall be furnished by the company, says that the same difficulty is met with there, and has occasioned him much perplexity, as it was frequently impossible to determine whether the men were really ailing or not. At New Almaden the difficulty was met by charging the medicines at cost price, as stated in Rule II.

Another difficulty arose from the fact that, in addition to the numerous blood relatives of a Mexican, he has numerous other connections, such as compadres, comadres, &c. All of these god-fathers, godmothers, and godchildren he regards as members of his own family. As a result, when these non-residents fell sick, they were often imported for treatment at the hands of the resident physician as members of the family of a contributor to the fund. This soon gave the physician more than he could do; and the place was turned into a health resort with free medicine and attendance for the vicinity. This was the cause of Rule IV., which, prescribing the fee of \$5 for each visit to a non-resident, at once put a stop to this abuse. On account of national prejudices, it was found necessary to maintain two separate hospitals, one at Spanish Town, the other at the English Camp. Nurses are paid from the fund as required.

Whenever an employee is injured while at his work for the company, no charge is made for any medical or surgical supplies furnished him; and if the needs of the case require it, he is furnished with nurses and boarded at the expense of the fund. When solely dependent on his support, his family is provided for during his illness in the same manner. The same is done for ordinary illness in deserving cases of destitution; and the advance is regarded as a gift or a loan, as the trustee may decide to be just. In cases of fatal accident or the death of indigent persons, the burial expense is sustained by the fund. It maintains a burial plot at the San José cemetery and also one at the hacienda, and another on a sandstone hill near the mine, which latter is not very popular among the miners for obvious reasons, although no ore as yet has been discovered there.

The physician is paid a regular salary of \$350 a month, and is required to make a monthly report to the trustees of—The number of visits made each month; the number of office prescriptions; the number of vaccinations; the number of obstetric cases; the number of cases of salivation. A professional druggist is employed at the mine to attend to prescriptions; but, as he also acts as clerk for the mine, only the time he is actually engaged as druggist is charged to the fund, at the rate of \$25 per month. The collections are made and the accounts kept by the regular bookkeeper of the mine, who receives a salary of \$20 per month from the fund.

A complete record of the fatal accidents during the last 13 years has not been kept. During the last four and a half years there have been just nine, or an average of two per year. During this time there have been on an average 440 men employed; this would make an average of less than half of 1 per cent. of fatal accidents per annum. It is a remarkable fact that in none of these fatal cases did the patients live long enough for treatment. In seven cases death occurred instantaneously, and in the other two, within half an hour. Three of these accidents happened at the surface and six underground. During the last four and a half years the highest annual mortality from all causes was 15 per 1000 inhabitants; the lowest 11 per 1000; the average about 13 per 1000. Cases of salivation never occur at the furnaces at present, except through extreme carelessness. The chief trouble of this sort at the hacienda is from cleaning the condensers and working the soot. During 1883 there was no salivation at all at the hacienda. In previous years there has been more or less from the cause stated.

Formerly there was very little salivation in the mines, the cinabar ores never giving any trouble of that kind. But at present, in working the rich labores, or stopes, of the 1600 and 1700 ft. levels of the Randol shaft, which contain a great deal of native quicksilver, there has been some trouble from this cause. This ground is in places thoroughly impregnated with native quicksilver, a fragment of ore showing drops all the way, from the size of a pea to microscopic globules disseminated through it. Of course the air in such labores is pretty thoroughly saturated with quicksilver vapour, in spite of all attempts at thorough ventilation. The chief source of absorption seems, however, to have been the skin. As the labores are rather warm the men work by preference stripped to the waist. As a consequence the dust, and probably the vapour also, is attacked by the saline matter in the perspiration, and introduced into the system through the skin. At least this is the theory of Dr. S. E. Winn, the resident physician, and that this is one important cause is substantiated by the fact that since he has insisted that the men be compelled to wear their shirts in the labores while at work the number of cases has diminished. Of course, every attention is paid to bathing, and the use of tobacco in any form is forbidden in these labores. No deaths have been known to occur from salivation. The treatment follows the odious of potassium method. Men disabled by salivation get half-pay.

A remarkable fact is the facility with which the Mexicans recover from wounds resulting from accidents or quarrels, while at the same time they succumb very readily to the attacks of disease. Their chief difficulty is with lung troubles, pneumonia, consumption, and the like. This seems partly due to constitutional predisposition, but largely to their careless, reckless life. They will frequently come out of the hot labores after a day's work, and without change of clothes expose themselves to the weather or a night of dissipation. The Mexican miners, although occasionally very well developed, do not as a rule last as long as the Cornishmen. The latter being more particular about wearing dry clothes at the surface, and not exposing themselves recklessly, suffer much less from lung troubles. The average age of the miners employed is 35 to 40 years, although some of them are 60 to 70 years old. A few boys and no women are employed in the mine.

NEW SOUTH WALES KEROSENE.—In speaking of the kerosene mineral from Joadja Creek Mine, near Berrima, Mr. Dixon, the well-known Sydney analytical chemist, says:—"This mineral resembles the Boghead mineral from Scotland, but is considerably lighter, having a specific gravity of 1.098 against 1.20. The yield of volatile hydrocarbons is much greater than from even picked specimens of Boghead, whilst the ash is only half as great as in that mineral."

NEW SOUTH WALES GEM STONES.—Among these is the spinel ruby. It is found in most river deposits containing gold, as in the sands of the Severn and its tributaries, at Uralla, county Sandon; Bingera, county Murchison; at Werong, with gold, zircons, blue and green sapphires, and other gems; Two-mile Flat, county Hardinge; Bathurst, Macquarie, Peel, and Cudgegong Rivers. Spinel is said to occur in the sandstone on the road near the Fitzroy Iron Mines, Natal. The late W. B. Clarke also mentions occurrence of minute spinel rubies in carboniferous sandstone at Kayon, Richmond River, but states that they are probably derived from the igneous rocks of which most of the beds in the Richmond River District are the recomposed materials.

PROVINCIAL STOCK AND SHARE MARKETS.

CORNISH MINE SHARE MARKET.—Mr. S. J. DAVEY, mine shareholder, Redruth (Oct. 30) writes:—Our market has not been very active this week, but Carn Brea advanced $\frac{1}{2}$, Pedn-an-drea $\frac{1}{2}$, and Wheal Agar $\frac{1}{2}$. West Kitty has fallen $\frac{1}{2}$, Dolcoath and East Pool close without much change on the week. To-day market is steady. At Tincroft meeting a call of 5s. per share was made. Subjoined are the closing quotations:—Carn Brea, $\frac{3}{4}$ to 1; Cook's Kitchen, 9 to 10; Dolcoath, 65 $\frac{1}{2}$ to 68; East Pool, 37 $\frac{1}{2}$ to 38 $\frac{1}{2}$; Killfret, 12 $\frac{1}{2}$ to 14; New Cook's Kitchen, $\frac{3}{4}$ to 1; New Kitty, 1 $\frac{1}{2}$ to 1 $\frac{3}{4}$; North Busy, 1 $\frac{1}{2}$ to 2; Pedn-an-drea, 1 $\frac{1}{2}$ to 1 $\frac{3}{4}$; Polberro, 2 to 2 $\frac{1}{2}$; South Crofty, 8 to 9; South Crofty, 1 $\frac{1}{2}$ to 1 $\frac{3}{4}$; South Wheal, 1 $\frac{1}{2}$ to 1 $\frac{3}{4}$; Tincroft, 6 $\frac{1}{2}$ to 6 $\frac{3}{4}$; Trevaunance, 1 $\frac{1}{2}$ to 1 $\frac{3}{4}$; West Basset, 1 $\frac{1}{2}$ to 1 $\frac{3}{4}$; West Frances, 5 to 5 $\frac{1}{2}$; West Kitty, 8 $\frac{1}{2}$ to 9; West Polbreon, 2 to 2 $\frac{1}{2}$; Wheal Ajar, 17 to 17 $\frac{1}{2}$; Wheal Basset, 2 to 2 $\frac{1}{2}$; Wheal Grenville, 5 $\frac{1}{2}$ to 6; Wheal Kitt, 4 to 4 $\frac{1}{2}$; Wheal Uny, 3 $\frac{1}{2}$ to 4.

Messrs. Annett and Wickett, stock and share brokers, Redruth (Oct. 30), write:—There has been considerable fluctuation in the market this week in most of the leading shares; to-day the tone is slightly better. Carn Brea and Tincroft are attracting attention in consequence of improved prospects. West Frances and Pedn-an-drea are enquired for. Closing prices herewith:—Carn Brea, 5s. to 6s.; Carn Brea, 3 $\frac{1}{4}$ to 4; Cook's Kitchen, 9 to 11; Dolcoath, 65 $\frac{1}{2}$ to 68 $\frac{1}{2}$; East Pool, 37 $\frac{1}{2}$ to 38 $\frac{1}{2}$; Killfret, 12 $\frac{1}{2}$ to 14; New Cook's Kitchen, 1 $\frac{1}{2}$ to 1 $\frac{3}{4}$; New Kitty, 1 $\frac{1}{2}$ to 1 $\frac{3}{4}$; North Busy, 2s. to 3s.; Pedn-an-drea, 1 $\frac{1}{2}$ to 1 $\frac{3}{4}$; Polberro, 1 $\frac{1}{2}$ to 2 $\frac{1}{2}$; South Crofty, 8 to 9; South Wheal, 1 $\frac{1}{2}$ to 1 $\frac{3}{4}$; Tincroft, 6 $\frac{1}{2}$ to 6 $\frac{3}{4}$; Trevaunance, 1 $\frac{1}{2}$ to 1 $\frac{3}{4}$; West Basset, 1 $\frac{1}{2}$ to 1 $\frac{3}{4}$; West Frances, 5 to 5 $\frac{1}{2}$; West Kitty, 8 $\frac{1}{2}$ to 9; West Polbreon, 2 to 2 $\frac{1}{2}$; Wheal Ajar, 17 to 17 $\frac{1}{2}$; Wheal Basset, 2 to 2 $\frac{1}{2}$; Wheal Grenville, 5 $\frac{1}{2}$ to 6; Wheal Kitt, 4 to 4 $\frac{1}{2}$; Wheal Uny, 3 $\frac{1}{2}$ to 4.

Mr. M. W. BAWDEN, Liskeard (Oct. 30), writes:—The mining market is dull, and appears to have resumed its former quietude. The advance on the tin standard not being maintained, since followed by a reduction of 2s., the irregularity and fluctuation on the price of tin has again depreciated most stock. Pedn-an-drea United shares in demand, and advanced to 1 $\frac{1}{2}$ buyers on an improvement in the 100 east. Subjoined are the closing quotations:—Bedford United, 1 $\frac{1}{2}$ to 1 $\frac{3}{4}$; Dolcoath, 65 $\frac{1}{2}$ to 68; Devon Consols, 2 $\frac{1}{2}$ to 3; East Pool, 37 $\frac{1}{2}$ to 38; Glasgow Caradon, 1 $\frac{1}{2}$ to 1 $\frac{3}{4}$; Gunnislake (Clitters), 1 $\frac{1}{2}$ to 1 $\frac{3}{4}$; Killfret, 1 $\frac{1}{2}$ to 1 $\frac{3}{4}$; Marke Valley, 1 $\frac{1}{2}$ to 1 $\frac{3}{4}$; Old Gunnislake, 1 $\frac{1}{2}$ to 1 $\frac{3}{4}$; Pedn-an-drea United, 1 $\frac{1}{2}$ to 1 $\frac{3}{4}$; Phoenix United, 1 $\frac{1}{2}$ to 2; Prince of Wales, 1 $\frac{1}{2}$ to 1 $\frac{3}{4}$; South Crofty, 8 to 9; South Crofty, 1 $\frac{1}{2}$ to 1 $\frac{3}{4}$; South Wheal, 1 $\frac{1}{2}$ to 1 $\frac{3}{4}$; Tincroft, 6 $\frac{1}{2}$ to 6 $\frac{3}{4}$; Trevaunance, 1 $\frac{1}{2}$ to 1 $\frac{3}{4}$; West Basset, 1 $\frac{1}{2}$ to 1 $\frac{3}{4}$; West Frances, 5 to 5 $\frac{1}{2}$; West Kitty, 8 $\frac{1}{2}$ to 9; West Polbreon, 2 to 2 $\frac{1}{2}$; Wheal Ajar, 17 to 17 $\frac{1}{2}$; Wheal Basset, 2 to 2 $\frac{1}{2}$; Wheal Grenville, 5 $\frac{1}{2}$ to 6; Wheal Kitt, 4 to 4 $\frac{1}{2}$; Wheal Uny, 3 $\frac{1}{2}$ to 4.

Mr. JOHN CARTER, mine shareholder, Camborne (Oct. 30), writes:—The share market this week is dull and depressed. On Oct. 25 the tin standards were reduced 2s. Carn Brea advanced on an improvement, but close weaker to-day. Wheal Agar and West Frances continue firm. The following are the closing quotations:—Carn Brea, 5s. to 6s.; Cook's Kitchen, 9 to 11; Dolcoath, 65 $\frac{1}{2}$ to 68 $\frac{1}{2}$; East Pool, 37 $\frac{1}{2}$ to 38 $\frac{1}{2}$; Killfret, 12 $\frac{1}{2}$ to 14; New Cook's Kitchen, 1 $\frac{1}{2}$ to 1 $\frac{3}{4}$; New Kitty, 1 $\frac{1}{2}$ to 1 $\frac{3}{4}$; North Busy, 2s. to 3s.; Pedn-an-drea, 1 $\frac{1}{2}$ to 1 $\frac{3}{4}$; Polberro, 1 $\frac{1}{2}$ to 2 $\frac{1}{2}$; South Crofty, 8 to 9; South Wheal, 1 $\frac{1}{2}$ to 1 $\frac{3}{4}$; Tincroft, 6 $\frac{1}{2}$ to 6 $\frac{3}{4}$; Trevaunance, 1 $\frac{1}{2}$ to 1 $\frac{3}{4}$; West Basset, 1 $\frac{1}{2}$ to 1 $\frac{3}{4}$; West Frances, 5 to 5 $\frac{1}{2}$; West Kitty, 8 $\frac{1}{2}$ to 9; West Polbreon, 2 to 2 $\frac{1}{2}$; Wheal Ajar, 17 to 17 $\frac{1}{2}$; Wheal Basset, 2 to 2 $\frac{1}{2}$; Wheal Grenville, 5 $\frac{1}{2}$ to 6; Wheal Kitt, 4 to 4 $\frac{1}{2}$; Wheal Uny, 3 $\frac{1}{2}$ to 4.

MANCHESTER.—Messrs. JOSEPH R. and W. P. BAINES, share-brokers, Queen's Chambers, Market-street (Oct. 30), write:—The usual restriction in new business which prevails during the progress of a settlement has been more than ordinarily noticeable this week, for besides the attention given to accounts there has been the further drag of falling prices, causing operators to have a more decided disinclination to enter into fresh engagements. The price of money, and its more than probable early advance, has no doubt exerted a powerful influence on values of home railway stocks, and for some days prices have been tending in buyers' favour almost all round, but when the advance in the Bank rate was announced the market went better assisted by rumours of better things in the iron trade, which through assisting some English and Scotch stocks is not yet reflected in prices generally for shares of iron concerns. The paucity of business is most noticeable in the miscellaneous classes of investments, transactions therein for the period the settlement has been progressing being very meagre indeed, and the aggregate for the week reaching but a poor total. Foreign funds are somewhat irregular, and excepting the prominent advances in Egyptian issues the balance of movement is distinctly adverse, rise being confined to an $\frac{1}{2}$ each in Russian Five per Cent. 1872, and Turkish General Debt, whilst the following are lower:—Portuguese, 1 $\frac{1}{2}$ to 1 $\frac{3}{4}$; Brazilian Five per Cent., 1875, 1; Argentine Hard Dollar, 1; ditto Public Work, $\frac{1}{2}$; Spanish, $\frac{1}{2}$; Italian, $\frac{1}{2}$; Mexican Three per Cent., 1851, $\frac{1}{2}$; and Peruvian Six per Cent., 1864. Colonial Government Bonds and Corporation Stocks, &c., are dealt in to some extent, but the turn of prices on revision is downward. Canadian Four per Cent. is 1; ditto Inscribed, $\frac{1}{2}$; Cape of Good Hope Five per Cent., $\frac{1}{2}$; and Manchester Corporation Four per Cent. $\frac{1}{2}$ lower, against which all the approach to advance there is notice in a rise in buyers' figures for Leeds Four per Cent. of $\frac{1}{2}$, sellers' price remaining unaltered.

BANKS alone of the miscellaneous classes show any activity, and herein business is comparatively good. National Provincial are quoted $\frac{1}{2}$, and Adelphi, $\frac{1}{2}$ down. On the other hand, Manchester and Liverpool Districts are $\frac{1}{2}$ higher. —**INSURANCE** shares still very quiet, but prices have undergone some revision, with the following result:—Higher: Thames and Mersey Marine, $\frac{1}{2}$; National Boiler, $\frac{1}{2}$; Reliance Marine, $\frac{1}{2}$ to $\frac{1}{4}$; Lower: United Fire Re-insurance, $\frac{1}{2}$; Sea, $\frac{1}{2}$; Liverpool and Lancashire Fire, $\frac{1}{2}$; and Maritime. —**COAL, IRON, &c.** AND MINING shares neglected. The advance in prices is not satisfactory. Higher: Nant-y-glo and Blaenau, Preference, $\frac{1}{2}$ to 1; Earle's Shipbuilding, $\frac{1}{2}$; Great Laxey Lead, $\frac{1}{2}$; Park Gate Iron, $\frac{1}{2}$; and Tharist Sulphur and Copper, $\frac{1}{2}$. —**Lower:** Staveley, $\frac{1}{2}$; John Brown's, 1; Rio Tinto, $\frac{1}{2}$; Cammell's, $\frac{1}{2}$; Palmer's Shipbuilding, $\frac{1}{2}$; and Canada Copper, &c., 3d.

COTTON-SPINNING, &c.—Shares steady, but without any further distinct development of recent advance in prices. —**TELEGRAPHS** rather better, on the whole. **TELEPHONE** shares quiet and lower, notably United, which show a fall of $\frac{1}{2}$. —**MISCELLANEOUS** shares neglected. Carriage and Tram of all issues are lower, and Gas Light and Coke, &c., Ordinary are marked down.

RAILWAYS.—The continued anticipations of dearer money have been realised to-day by the advance of the Bank rate to 4 per cent. Up to to-day markets hang heavily all round, but on the Bank rate announcement values steadied, and on reported improvement in the iron trade brought improvement in many home railways, notably in Berwick, Great Western, Sheffield, A. and Scotch stocks. Southern lines, too, have improved. The Canadian markets, after having been decidedly lower, have rallied to about the prices of a week ago, notwithstanding that this week's traffic return is a decrease of 13,500 on the joint lines. The greater part of the advance is marked to-day, since the traffic announcement, and is attributed to the prospect of the raising of freight rates on Nov. 1 helping them materially. Americans lifeless, but judicious buying and laying by would, doubtless, result in a good profit ere long. Mexican railways practically unchanged.

SCOTCH MINING AND INDUSTRIAL COMPANIES SHARE MARKETS.

STIRLING.—Mr. J. GRANT MACLEAN, stockbroker and ironbroker (Oct. 30), writes:—During the past week there has been little business doing, and prices are generally lower, in sympathy with the dull state of trade and the upward tendency of the Money Market. There are, however, signs of recovery in the iron trade, which if sustained may improve prices generally.

In shares of coal, iron, and steel companies the principal business has been in Marbles, which declined to 28s. on advice of floods at the mines, which the directors expect will affect production for some time; but they have since recovered to about 41s. Bull's Power shares offered at 35s. Cardiff and Swansea are 40s. to 45s., and Wigan Coal 24s. to 27s.

In shares of foreign copper and lead companies prices are generally easier. Tharist has declined from 5 $\frac{1}{2}$ to 5 $\frac{1}{4}$ 14s. 6d. Arizona touched 15s., but are now better about 13s. 6d. Lake Superior are 2s. to 3s., and Tannus Silver Lead (Preference), 2s.

In shares of home mines prices are also easier. The last sale of the Glasgow Caradon compares unfavourably, but the reports from the mine seem to be improving, and possibly the return of ore may increase. Collinsons are at 2s. 6d.; Camborne Vean, 3s. 3d.; Devon Consols, 4s. to 5s.; Devon Friendship, 2s. to 3s.; Exton, 37s. 6d. to 42s. 6d.; East Blue Hills, 4s. to 5s.; East Wheal Rose, 5s. 6d. to 6s. 6d.; Great Holway, 10s. to 15s.; Goginans, 1s. 9d.; Killfret, 10s. to 12s.; Leadhills, 25s. to 30s.; Mounts Bay, 2s. to 3s.; Mellanear, 17s. 6d. to 20s.; New Caradon, 1s. 6d.; New Kitty, 2s. to 3s.; Old Gunnislake, 2s.; Pedn-an-drea, 2s. to 3s.; Standard Lead, 23s. 9d.; South Darren, 4s. to 5s.; South Crofty, 1s. 3d.; St. Just United, 3s. 6d.; Trevaunance, 3s. to 4s.; Trevaunance, 4s. 6d. to 5s. 6d.; Weardale Lead, 19s. to 21s.; West Crofty, 2s. 6d.; West Frances, 4 $\frac{1}{2}$ to 5 $\frac{1}{2}$; West Phoenix, 4s. to 6s.; West Polbreon, 10s. to 12s.; West Pool, 3s. 6d.; West Gonama, 9d.; Wheal Basset, 40s. to 45s.; Wheal Orebor, 20s. to 25s.; Wheal Coates, 2s.; Wheal Luskay, 3d.; and Wye Mines, 3s.

In shares of gold and silver mines prices do not show any particular alteration. Montanas are firmer, at 25s. to 27s. Robinsons better, at 3s. to 4s. Since the debenture money has been all got, and the mine is fully equipped with machinery, profitable returns should soon be announced. It should not be overlooked that the ore in this mine differs from most other gold mines; that the whole of the lodes from side to side is paying ore. Almas are at 2s. to 3s.; Balkis, 2s. 6d. to 3s.; Cartagos, 4s. to 5s.; Callao 8s. to 10s.; Canim Barro, 1s. to 2s.; California, 10s. to 12s.; Chile, 2s. to 3s.; Chontales, 2s. to 3s.; Denvers, 1s. 6d. to 2s. 6d.; Gold Coast (Ordinary), 2s. to 3s.; ditto (Preference), 12s.; Grass-wood, No. 3, 25s. to 35s.; Hungarian Gold and Silver Reduction Works (Preference), 42s. 6d.; Indian Consolidated, 2s. to 3s.; Javali, 2s. 6d. to 3s. 6d.; La Plata, 4s. 6d. to 5s. 6d.; Nundyroog, 2s. 6d. to 3s. 6d.; New Callao, 3s. to 4s.; New Potomac, 9s. 9d. to 10s.; New Emma, 10s. to 12s. 6d.; Nine Reefs, 1s. 3d. to 2s. 6d.; Oscar, 15s. to 18s.; Ruby, 5s. 3d. to 7s. 6d.; Tacuash, 10s.; Tecomas, 1s. 3d.; Victoria, 5s. to 6s.; and Yuba River, 2s. to 3s.

In shares of oil and miscellaneous companies, prices are generally better. Lanark Oil, however, has declined from 83s. 6d. to 77s., being in better supply. Midlothians are still in favour about 69s. Elmore and Co. (Debentures), are at 45s. Nobel's Explosives have improved from 14 $\frac{1}{2}$ to 15 $\frac{1}{2}$; Lawes' Chemicals, 4 $\frac{1}{2}$ to 5 $\frac{1}{2}$; and Patent Safety Blasting Powder, 15s. to 20s.

EDINBURGH.—Messrs. THOS. MILLER and SONS, stock and share brokers, Princes-street (Oct. 29), write:—The only important movement in Scotch railways since last report have been in Great North and Highland. Great North made a spring on Monday from 52 $\frac{1}{2}$ to

54 $\frac{1}{2}$, but has since relapsed to 53 $\frac{1}{2}$. Highland, which is now quoted ex dividend, has recovered to the same price, 30, at which it stood before the dividend was taken off. In banks, Royal and British Linen have risen, and Clydesdale and Commercial are rather lower. The shares of colonial and American investment companies have been moderately active. Prairie Cattle shares 1st and 2nd issue have declined. Arkansas Valley as well as Swan Land and Cattle are rather better. Arizona Copper have continued to be dealt in at fluctuating prices. To-day they must advance from 15s. to 18s. 6d.; and the 2nd issue rose from 13s. 9d. to 18s. 6d. Burnt Island Oil have advanced on a favourable report by the directors. Midlothian, Pumpherton, and West Lothian Oils are also higher. The "backwardation" paid on Lanark Oil was lighter at last settlement than for either of the previous two accounts, and the price has declined. Standard Life have been sold at a reduction of 20s., but the changes on other insurance shares are not important. Nobel's Explosives have, as usual, been very fluctuating, but they mark an appreciable advance within a week. Since Wednesday last week Arizons have changed from 16s. 3d. to 13s. 6d.; the 2nd issue from 15s. to 18s. 6d.; Calmarine Gas Coal from 6 $\frac{1}{2}$ to 6-1s.; Rio Tinto (to bearer) from 14 $\frac{1}{2}$ to 14; Steel Company from 6 $\frac{1}{2}$ to 6 $\frac{1}{2}$; Tharsis from 5 $\frac{1}{2}$ to 5-15s. 6d.; Burnt Island Oil from 16 $\frac{1}{2}$ to 17; Lanark Oil from 83s. to 78s.; Midlothian from 69s. 6d. to 69s.; Pumpherton from 11 $\frac{1}{2}$ to 12; West Lothian from 9 to 9 $\frac{1}{2}$; Nobel's from 14 $\frac{1}{2}$ to 15 $\frac{1}{2}$.

Mining Correspondence.

BRITISH MINES.

BEDFORD UNITED.—H. Trezise, Oct. 28: I beg to hand you my setting report for eight weeks ending Dec. 20. The 138 east, north lode, to drive by six men, at 10 $\frac{1}{2}$ fms. per fathom; lode worth 4 $\frac{1}{2}$. Three tribute pitches set to six men at 15 $\frac{1}{2}$. McCallan's engine-shaft to sink 12 fms. by nine men, at 16 $\frac{1}{2}$ fms. per fathom. The 75 east to drive by four men, at 5 $\frac{1}{2}$ fms. per fathom; lode worth 4 $\frac{1}{2}$. The 62 west to drive by four men, at 12 $\frac{1}{2}$ fms. per fathom; lode worth 4 $\frac{1}{2}$. No. 1 stope in the back of the 62 west by two men, at 1 $\frac{1}{2}$ fms. per fathom; lode worth 4 $\frac{1}{2}$. No. 2 by two men, at 1 $\frac{1}{2}$ fms. per fathom; lode worth 5 $\frac{1}{2}$. No. 3 by four men, at 1 $\frac{1}{2}$ fms. per fathom; lode worth 6 $\frac{1}{2}$. No. 4 by two men at 1 $\frac{1}{2}$ fms. per fathom; lode worth 6 $\frac{1}{2}$. No. 5 stope in the bottom by two men, at 1 $\frac{1}{2}$ fms. per fathom; lode worth 6 $\frac{1}{2}$. Four tribute pitches at the 62 east and west by eight men, two at 9s., and two at 10s. in 1 $\frac{1}{2}$. The 62 east to drive by four men, at 6 $\frac{1}{2}$ fms. per fathom; lode not taken down. The 62 east to drive by two men, at 2s. 10s.; lode large, but unproductive. Wines to sink behind the 62 east by nine men, at 4 $\frac{1}{2}$ fms. per fathom; lode 4 ft. wide, worth 12 $\frac{1}{2}$ fms. per fathom, a very promising lode. Stope in the back of the 42 by two men, at 1 $\frac{1}{2}$ fms. per fathom; lode worth 12 $\frac{1}{2}$. Five tribute pitches at the 42 and above at tributes varying from 6s. 8d. to 12s. in 1 $\frac{1}{2}$.

CARN CAMBORNE.—W. O. Vivian, Oct. 30: In the 105 cross-cut south there is nothing new to remark on. In the 105, west of cross-cut on south lode, the appearances are as favourable as when last reported, the lode being rather more than 1 ft. thick, yielding throughout black and yellow copper ore in peach, and soft spar with occasional rich stones of tin. The present price for tin is 10s. 6d. per cwt. by six men is 7 $\frac{1}{2}$ 10s. per fathom; but the letting price to-day would be less than this.

CATHEDRAL CONSOLS.—S. Davey, Oct. 30: Since last report we have been making good progress with the driving of the cross-cut south at the 84, and have driven over 2 fms.; the ground is similar in character as to that opened out for some time past, and we are meeting with small veins of quartz, which are still showing kindly. Some nice patches of lead ore are in the lode for about 3 ft. wide, and in the hanging wall opposite this ore ground is a strong dark shale. This kind of shale is generally associated with great runs of ore in all good mines in this district, and I am in great hopes it will be found so here; but at present I would refrain from being so sanguine.

CWYSTWIT.—Joseph B. Rows, Oct. 29: The pass in course of construction on the 15th inst. (the date of my last report between Raw's and the middle levels has since been completed, and the men are now engaged in filling up the open stopes below, but we shall at once proceed with the clearing of Raw's level shaft, as stated in my last, and avail of the means now at our disposal for getting rid of the debris. Our bargains maintain their yield, and are supplying sufficient lead and blende stuff to maintain our present returns. We sent out samples yesterday of 15 tons of lead ore, for sale on Nov. 11.

DEVON GREAT CONSOLS.—Isaac Richards, Oct. 30: Monthly Report: Wheal Maria: During the past month the eastern shaft on the Capel Tor lode has been sunk 2 fms. 3 ft., the lode proving from 4 to 5 ft. wide, composed of capel and quartz with peach and some good quality muncie and copper ore. Wheal Emma: Railway Shaft: During the past month the cross-cut south at the 220 has been driven 1 $\frac{1}{2}$ fms. 4 ft. in the ground proving rather troublesome for exploration in consequence of layers of quartz being mixed with the killas. The 160 east, east of Richards' cross-cut, on the south part of the lode, has been driven 2 fms. 0 ft. 10 in., the lode proving from 1 $\frac{1}{2}$ to 3 ft. wide, and yielding small quantities of copper and muncie ores; this drive is now suspended. Watson's: The trip-plat at the 112 referred to in former reports has been completed, and the portion of work remaining in connection with fixing the plunger fairly down the shaft, and being got on with as fast as possible, and which we hope to have completed in the course of another week. Dunstan's: Wines in the bottom of the 82, west of the engine-shaft, has been sunk 1 $\frac{1}{2}$ fms. 0 ft. 6 in., and communicated with the rise in the back of the 100 below, the lode proving for this depth 3 ft. wide, and yielding saving work of copper and muncie ores. The western has been sunk 1 $\frac{1}{2}$ fms. 2 ft. 6 in., making it 7 fms. 0 ft. 6 in. below the 32, the ground continuing of a very congenial character for the production of mineral. The 32 has been driven east of the western shaft 3 fms. 3 ft., the lode proving 2 ft. wide, of a very promising character, and has yielded for the greater part of the distance driven some good stones of copper ore and 2 tons of muncie per fathom.

DEVON GREAT UNITED.—Isaac Richards, Oct. 30: In the 120, east of Willeford's shaft, no lode has yet been taken down since last advice. In the 125, west of Willeford's shaft, the lode is from 2 to 3 ft. wide, and yielding 2 tons of copper ore and muncie ores per fathom, and is altogether of a promising character. In the 60, west of Watson's shaft, the lode is 2 $\frac{1}{2}$ ft. wide, composed of capel and quartz, and peach, with some good quality copper and muncie ores. In the cross-cut south at the 154 the ground continues of a very congenial character for the production of mineral. We shall sample to-morrow about 75 tons of copper ore of good quality.

D'ERESBY.—J. Roberts, Oct. 29: The water is now drained 10 fms. 2 ft. below the No. 5, and full progress is being made, considering the great dimensions of the workings which are now reached. We have now completed the timbering of the new shaft down to the place where the communication was made to the rise, and the men are now completing cutting down the ground about that place, which will take four or five days.

DRAWWALLS.—Thomas Gregory, Oct. 30: We have completed the clearing of the 102 to the end, and I am pleased to inform you we have this day resumed the sinking of the engine-shaft below the above-named level. The lode here is of a favourable character, and some good stones of tin have been broken. I hope to report on this point more fully next week. The north lode maintains its size, and is producing fair quality stampwork. All is going on satisfactorily in and on the mine.

DUCHY PERU.—R. and J. Nancarrow, Oct. 29: We are pleased to report excellent progress is being made in driving the 80 west towards No. 2 north and south lodes, and the present appearance is a very promising one for an early improvement. In driving the 80 south ore No. 1 east and west lode, which has thrown the No. 1 lode (we think from appearances a little to the east) when we reach this lode in a settled state we hope to report an improvement. The 70 west is looking very promising indeed where the lode is producing boulders of blende of good quality, with every indication of a good deposit of mineral; here good progress is also being made in as good-looking lode as can be seen for part carried. We cannot see any material change in the tribute department to report on this week. We have sampled three parcels of blende on Friday last, which ought to realise good prices judging from the appearance of the samples. The surface operations, machinery, and pitwork are carried on in a practical manner, and we are curtailing every expense we possibly can in order to open up the mine to the satisfaction of the shareholders, which we have every confidence of doing in depth.

EAST BLUE HILLS.—S. Bennetts, W. K. Mitchell, Oct. 22: The lode in the shaft sinking below the 10 is worth 10 $\frac{1}{2}$ fms. per fathom. The 10 west end is worth 8 $\frac{1}{2}$ fms. per fathom. The east end at this level is not quite so productive as it has been, and at present is worth 6 $\frac{1}{2}$ fms. per fathom. A stope in the back of this level is worth 12 $\frac{1}{2}$ fms. per fathom. In the adit east end there is not much change to notice. The end as yet is not clear of the influence of the cross-cut.

EAST BLUE HILLS.—S. Bennetts, W. K. Mitchell, Oct. 29: The lode in the shaft below the 10 continues just as last reported, worth 10 $\frac{1}{2}$ to 11 $\frac{1}{2}$ fms. per fathom. In the 10 east end the lode is worth 5 $\frac{1}{2}$ fms. per fathom. In the same level west end it is worth 7 $\frac{1}{2}$ to 8 $\frac{1}{2}$ fms. per fathom, and in the stope in the back of this level 10 $\frac{1}{2}$ fms. per fathom. The adit east end is producing low quality tin stuff.

ECOT.—W. Bowman, Oct. 27: Each department of our work has progressed fairly during the past week. We are pushing forward the 45 west cross-cut with rock-drill through the vein, which is composed of limspate, spotted with yellow copper ore. In Clayton Mine the water has been lowered about 3 fms. during the week, and we are able to land upon a heap of loose stuff in the large open, but there is a considerable extent of water north and west, of which we can at present see no side in each direction. We are now putting down another lift of pumps to the 11, which will delay pumping for a day or two. The trial, north-east of the 50, is not looking so well as a week ago; but we have still a spar joint spotted with copper, which features the formation in the direction of Clayton vein. Vivian's vein has again been spotted with lead ore, and must be approaching the Dutchman's vein; but we are unable to find its exact location at this depth on account of the variation in underlie. Ecton Mine: The trial in Salt's level west, upon Ecton vein, is looking better, and we have increased quantity of copper carbonate dipping north-west below the level. The quantity also is better as depth is attained. If this appearance continues we shall shortly commence to cross-cut from the deep adit to intersect it from below. At East Ecton we are erecting a smiths' shop, and preparing the ground for pitwork and winding machinery.

FRONGOCH.—J. Kitto and Son, Oct. 25: Monthly Report: Since the date of our last report we have had a fair supply of surface water for all our requirements, and the winding and dressing of ore, together with the other mining operations, have been carried on with the usual regularity and energy. In reference to our underground work, we have recently put a set of men to rise above the roof of the 44 in the ore ground lately opened at that level, and referred to in our previous reports; and we have put another set of men to sink below the 34 towards them, in order to effect a communication between these levels and prepare this section of ore ground for stamping. At each of these

places the lode will produce fully 3 tons of blende and about 5 or 6 cwt. of lead ore per fathom, which will pay all its working expenses and leave a fair profit. We have several other sections of lead and blende ground of similar size, and different levels throughout the mine, some of which we have not been able to work to advantage during the dry season; but not that we have every reason to expect a full supply of water, we purpose resuming operations as soon as we are carrying on a vigorous development of the mine, believing that this will result in a slight improvement in the prices of lead and blende ores, which will be followed by profitable results. On Oct. 22 we sold to Villiers and Co. 100 tons of blende at 3 $\frac{1}{2}$ 1s. 6d. per ton, and have sampled another 160 tons for sale on Oct. 25.

GAWTON.—George Howe, Oct. 27: We have nothing new to report in this point of operation during the past week. All our surface work is progressing satisfactorily.

GOGINANS.—J. Kitto and Son, Oct. 25: There has been no change worth remark at any part of the mine since our last report. The three productive points at the 70, 50, and 40, referred to at that time are still yielding about 15 cwt. of silver-lead ore per fathom respectively, which will pay very well for extraction and incidental expenses, in fact, if we had large sections of blende of ore, but unfortunately the valuable ground opened out is getting short, and consequently our operations are limited. On Oct. 20 we sold to Messrs. A. Ryton and Son 10 tons of silver-lead ore at 10 $\frac{1}{2}$ 1s. 6d. per ton, which is now being delivered, and we expect to get and sell about the same quantity next month.

GOODEVERE.—H. Knott, Oct. 29: The mine sinking below the shaft, which is being urged on by six men; the lode continues large, and of a muncie character, presenting an excellent appearance, and producing good quality tin. Seeing that this mine is going down in profitable ground, every effort that we sink will add considerably to the value of your property, and every effort shall be made to get down 10 fms. below the adit, if possible, before the influx of water is more than will admit of our making satisfactory progress, which I anticipate will be the case during the winter months. I am also very anxious to get the deep adit driven home to intersect this lode, which will be of the utmost importance for the effectual and profitable working of this mine; and I do not hesitate to say that the prospects are excellent, and leaves very little doubt that a remunerative property can be quickly opened up with a little more spirited development.

GREAT HOLWAY.—W. T. Harris, Oct. 30: Roskell's Shaft: The 65 level north—since last report operations have been resumed, and appearances indicate a near approach to an important change, even the accomplishment for which this level was first started. The intersection of Partridge lode, the present east contains nice samples of lead; set to four men, at 7 $\frac{1}{2}$ fms. per fathom. Level Shaft: The 60 level, No. 1 pitch west in back, is producing 15 cwt. lead and 1 ton blende per fathom; set to 10 men, at 80s. and 30s. per ton respectively. No. 2 pitch in back west continues to look well, worth, on an average, 1 $\frac{1}{2}$ ton lead and 1 $\frac{1}{2}$ ton blende per fms.; set to 22 men at 55s. and 30s. per ton respectively. No. 3 pitch in bottom of level yields lead and blende in paying quantities; set to two men, at 100s. and 40s. per ton respectively. No. 4 pitch, east in bottom, is yielding a little lead, and 1 $\frac{1}{2}$ ton blende per fathom; set to four men, at 100s. per ton the former, and 40s. per ton the latter. No. 5 pitch, west in back, is worth 5 cwt. lead and 2 tons blende; set to six men, at 100s. and 40s. per ton respectively. No. 6 pitch in back is producing 10 cwt. lead and 1 ton per fms.; set to four men, at 100s. per ton, and 40s. per ton blende. No. 9 pitch west is worth 10 cwt. lead and 1 $\frac{1}{2}$ ton blende per fms.; set to six men, at 100s. and 40s. per ton respectively. No. 10 pitch in back is producing 10 cwt. lead and 1 ton blende per fathom; set to four men, at 100s. per ton the former, and 40s. per ton the latter. Brammoor Shaft: The 60 level east, No. 1 pitch in back, is worth 10 cwt. lead and 1 $\frac{1}{2}$ ton blende per fathom. No. 2 pitch in back is yielding 8 cwt. lead and 15 cwt. blende per fathom. No. 3 pitch east is producing 5 cwt. lead and 1 ton blende per fathom; set to eight men, at 100s. and 40s. per ton respectively. Office Shaft: The

promising nature, and having about 9 ft. more to rise to strike the limestone. We hope to see a change for the better; the ground is much harder in the rise. The cross-cut is in a line, and about the same in appearance.

NORTH PART-Y-GO.—W. Waaley, Oct. 30: Last Saturday being the end of the month I set Brown's shaft at 35s. per yard for as much as they can sink for the month, the men to find all tools, powder, fuse, candles, and smith work as before.

NORTH TREKERRY.—Pryor and Son, Oct. 30: No. 1 lode in the deep adit level east of cross-cut is worth 19s. per fathom, and in this level west of cross-cut the lode is worth 20s. per fathom. No. 2 lode east of cross-cut is worth 14s. per fathom. No. 3 lode east of cross-cut is worth 22s. per fathom, and west of cross-cut 24s. per fathom. No. 4 lode east of cross-cut is worth 15s. per fathom. The ground in the deep adit cross-cut is rather spare for driving on account of the end letting out a quantity of water, which indicates nearing the lode. Engine-Shaft: Within the last two or three days we have cut a large stream of water in the 24 cross-cut driving south of shaft which is coming from a branch dipping towards the lode, and the water issuing from the end is strongly tinged with iron. The pit-work and machinery are in good condition, and continue to work well. The large wood house is being rapidly filled with the rich tin-ore coming from the above lodes from drivages alone. Saturday next being our pay and setting, when a detailed report shall be sent you.

OKEL TOR.—H. Bulford, J. Rodda, Oct. 30: The 93 east end, on the south lode, is being driven by two men, at 4s. 10s. per fathom. The winze from the 93 is now communicated with the rise from the 90: we are driving east and west by four men each way. The stope on the north lode are being worked by 18 men. All points looking well.

OLD SHEPHERDS.—R. and J. Nancarrow, Oct. 29: Harvey's shaftmen are progressing very favourably with their contract, having sent down the winchore engine, &c., for bottom of new plunger-lift, and every exertion is being made to complete this work by the time specified in former reports. In consequence of the water being in at the bottom of the mine while sending down the new pit-work the men have not been able to work in the 112, west of Harvey's. The men at Teague's are now engaged cutting ground, and securing the shaft to bring down skiproad from the 92 to the 102. There is no change worthy of remark in the 92 cross-cut, north of old sump, with the exception of an increase of water. The tribute department is looking encouraging, having 12 pitches in number, tributes varying from 3s. to 6s. per ton. We sampled a nice parcel of lead to be sold on the 31st inst. The dressing department is in active operation preparing another parcel for the market. All machinery is working in an effective manner, and surface operations proceeding in the usual way.

PATERSBYE AND CLARIGILL HEAD.—John Peart, Oct. 24: From the rise put up from the low level forehead to the top drift, we have commenced a drift 2 fms. below the old drift, and have driven the first 3 fms. mostly in Sir John's vein, but are now turning more to the west to cut Clargill's Head vein. The reason we kept the drift south was to make sure of not cutting in behind Clargill Head vein, but to give it time to get clear of Sir John's vein. Where we are driving at present is rather slow cutting; it is similar to what we cut through in the cross-cut above. We met with samples of ore. Where we are cutting there is no defined vein—a lot of mineralised stuff thrown in between the two veins; but in two or three weeks we may get fairly into the vein, and will have a chance then of showing some better results. We have sampled this week 7 tons of lead ore.

POLOREBO TIN.—W. H. Martin, Oct. 29: Monthly Report: Highburrow shaft: The 50 east is driven from the shaft 4 fms.; this is the deepest point, and I am proud to report that the lode is improving for tin as we extend. It is over 4 ft. wide, and the strong indications are all that are required for a rich producing lode. They far exceed the 40 and 30 over this point. Driving by six men at 3s. per fathom. The 50 west is driven 2 fms. 3 ft. In this drive, to the north of the lode, the granite is of a decomposed nature, and the lode, at present, is not so productive as in the east end. Driving by four men at 2s. per fathom. The 40 east is extended 49 fms. 4 ft. During the month we have been driving on the south course for speed, by six men, at 4s. 10s. per fathom. We purpose to continue on this course for a few more fathoms, to reach the junction and dip the slide coming back from Harvey's shaft, which is a most important point; it is one of the main objects for the future of the mine. The 40 west is extended 41 fms. 2 ft., driving by four men at 3s. per fathom. The lode at present is unsettled by the influence of the cross-course, but in a few feet we hope to enter the ore ground west of the cross-course, and 10 fms. deeper than the old engine-shaft. The 30 west winze is communicated with the 40. It has opened good ventilation, and a profitable section of ore ground. The rise in back of the 30 west has opened a good section of ore ground, which is waiting until the shafts are set to work. The 30 east rise to open the ground for stopping is up 3 fms.; rising, by four men, at 5s. per fathom. The reason I have not given the value of the points is that we are still filling the tin-stuff in its rough state, but after the stumps go to work we shall sample every parcel of tin-stuff before it goes to the stamp. West of the engine-shaft we have cut down the end and side of one of the adit shafts for the reception of a plunger-lift, and we are now in course of fixing the same to pump the water for the dressing-floors.—Tribute: A pitch in bottom of the 17, west of winze, by four men, at 13s. 4d. in 12. A pitch in the 17, east of Highburrow shaft, by four men at 13s. 4d. in 12.—Surface: The masonry for the engine and boiler house is completed, and few more perches to the stack will be sufficient to start the stamps. The principal parts of the engine and boiler are fixed, and we are now closing up the small connections and condensing work. The stamps, axles, covers, and half-passes are fixed, and also the bed in front of the stamps. The carpenters are engaged about the round bushes. We hope to start the stamps in a fortnight from this time.

PRINCE OF WALES.—S. Roberts, Oct. 21: In the 102 fm. level east we found a course about 2 ft. wide, composed of killas, spar, capel, and mundle, with some excellent stones of tin; evidently forming a part of the lode on the hanging-wall, which is now taken from it, and to-day we commenced driving down the lode, which as far as yet seen there is little or no change or notice in size or quality since last reported. The lode in the stope in back of this level is 4 ft. wide, worth 5s. per fathom for tin. The 90 fm. level west driving on the new Silver lode, which is 1½ ft. wide, in which traces of the Prince of Wales lode can be distinctly seen, which shows that the point of junction is still ahead. Tribute pitches producing their usual value and quantity of tin and copper ores.

PRINCE OF WALES.—S. Roberts, Oct. 29: The 102 east is set to six men, at 5s. per fathom; lode 4 ft. wide, worth 12s. for tin. We regard the falling off in value as only temporary. It is again opening wider, improving in character and value, and the water is issuing very strongly from the forebreast. I have put the men to put a stope in the lode over the back of the level near the end, in order to heighten it previous to driving. The stope in the back of this level from the No. 2 rise east to four men, at 2s. 10s. per fathom; lode 4 ft. wide, worth 4s. for tin, and occasional patches of copper ore. The 90 west to four men, at 4s. 10s. per fathom. This drive is on the course of the new Silver lode, which, though small at present, traces of the Prince of Wales lode can be distinctly seen in it. We purpose putting men to try to stop the bottom of the 90 east during the week. Two tribute pitches in the back of the 102 west, two in the back of the 90 east, and one in the back of the 55 east, by 12 men, at 13s. 4d. tribute; and one in the back of the 45 west, by six men, at 11s., and two in the back of the 28, on the Goodluck lode at Goodluck shaft, by four men, at 13s. 4d. in 12. We are preparing a parcel of copper for sampling on Oct. 31.

ROMAN GRAVELS.—Arthur Waters and Son, Oct. 30: We have to-day sold 10 tons lead ore for 750s. All the hard lodes and stopes are yielding ore in quantities equal to the values given in late reports.

RUSSELL UNITED.—J. Bray, Oct. 30: Matthew's engine-shaft is down 30 fms. below the 97; we shall now call this level the 127. We have driven east from the shaft 1 fm. 2 ft. on the north side of the lode, which will be taken down in the course of a few days, when you shall know the result. We shall commence the cross-cut north at this level toward the Great North lode the early part of next week. At Stephen's engine-shaft the ground continues to look favourable, spotted with yellow copper ore in small branches, underlying south into the lode. The shaft will be down to the 57 by the end of the week, when the cross-cut south will be commenced to intersect the lode, which we expect to reach in about 10 or 12 fms.

SILVER HILL.—G. Rickard, Oct. 29: We are making very fair progress in clearing the stuff from the eastern level on Brothers lode; this week I hope to have it complete, when the driving of the end will be resumed in a very promising lode for finding silver ores. The other places of operation continue to look exceedingly cheering. I consider it is very important that we should be driving the tunnel north in order to intersect the strong and masterly lodes before the tunnel forebreast.

SOUTH CONDUROW.—W. Rich, W. Williams, H. King, Oct. 29: We have holed the winze below the 54, west of Marshall's shaft. This has given good ventilation, and we have resumed the driving of the level west. The 55 end carries good stones of copper, intermixed with tin. The 53 end west also yields a little copper. The 70 end, east of King's, is worth 8s. per fathom, and looks promising to improve. The 50 end east is worth 12s. per fathom. There is no material alteration in the stopes and pitches throughout the mine, but the low price of ore is sadly against us.

SOUTH DEVON.—W. Hooper, Oct. 30: The lode in Martin's shaft, sinking below the 120, is without any particular change either in size or appearance since last reported on, worth 20s. per fathom. In the 120, driving west of Martin's shaft, the lode maintains its size and value, worth 18s. per fathom; but from the appearance of the end to-day I think we are getting very near the principal cross-course. To the west of same in the level over this—the 110—we had a good paying lode for 30 fms. in length; and, in my opinion, it will prove equally as productive—in fact, the 120, from Martin's shaft, to the present end has proved to be of much greater value than the level over the 110. The lode in No. 1 stope, in back of this level is worth 10s. per fathom. In No. 2 stope the lode is worth 14s. per fathom, since we have had an increase of water the dressing machinery has been kept going to get all the ore possible for the next sampling.

SOUTH PENSTRUTHAL.—(Special Report): T. Hodge, Oct. 22: I have carefully examined this mine to-day, and beg to hand you the following as my report thereon:—I need not make any comment on the situation of the mine, as it is well known to you. I may say that the mine is well equipped with machinery, ample for all requirements to effectually prove the mine. Walton's shaft is sunk for a 125 fm. level, the vein is standing south of the shaft, and proved to be at the bottom 30 ft. wide; in the centre of the lode (15 ft.) a level has been driven west 7 fms. on the leader part, 6 ft. wide, composed of mundle, sugar-spar, prisms, in which at times come good stones of copper ore are found. The matrix of the lode is very promising for producing large bodies of ore. On the south part of said vein a level has been driven east on the leader part; it is of a clinder or honeycomb form, yielding some rich stones of ore. The capel on the south produces some rich stones of tin, but the rock, in my view, indicates more for copper than tin, and the matrix of the lode indicates the same. I minutely examined the vein from the 80 fm level downwards; the lode in the bottom shows a marked improvement to the upper levels. Flat-rod shaft is sunk to the 170, distant from engine-shaft 52 fms. The 170 is driven about 25 fms. west in a hard lode. I may here remark that in about 25 fms. further driving a small cross-course will be intersected; this will be at a point about 10 fms. east of the engine-shaft. The said cross-course, so far as can be seen, has a great effect on the lode. To the east of the said cross-course the ground is more like tin-bearing, but to the west of it it shows every indication for producing copper in large quantities.

STANDARD.—W. H. Borlase, Oct. 30: The lode in the 45, west of shaft, is not looking so well to-day. The change I hope is only temporary. There is a nice branch of blende, sulphur, and lead about 3 in. wide, which I think will open into lead shortly. The total width of the lode is 3 ft. There is a good feed of water bursting from the forebreast, which I consider a good sign. The new shaft and rise are approaching each other at a fair speed, although the air in the

rise is very light. The communication will be effected within the time stated. The rain has now fairly set in, and our reservoirs are gradually rising, and I hope our water trouble is now at an end. The lode drought has had no precedent for many years; should the same occur again we shall be equal to the occasion when our new plant is ready for work, which I am pushing on as fast as possible.

TREVAUNANCE UNITED.—Wm. Vivian, Oct. 31: I am glad to state we are making fair progress in cutting down the engine-shaft, and also with the work for the erection of the engine-house. As before stated, we have purchased a good 50-hp. engine, and last week I purchased a good 12-ton boiler and fittings, all in very good condition, also a 30 fm. 10-in. plunger-lift. There will not be any time lost or necessary cost spared, but I will do my best to bring about this mine as soon as possible. We have opened on a lode over 30 fathoms in length, worth 20s. per fathom, and the lode in the end is still as good as ever.

WEST OARADON.—N. Richards, Oct. 29: Gilpin's lode in the 38 west is 2 ft. wide, yielding about 1½ ton of copper ore per fathom. There is no change to notice in the stope in the back of the adit on this lode, which are yielding in the aggregate 3 tons of ore per fathom. A stope in the bottom of this level will yield 1½ ton of ore per fathom. The winze sinking below this level is in Hallett's cross-course, consequently we do not expect to get much ore until we get down and drive away a little from the same.

WEST OREBOR.—J. Andrews, Oct. 22: The lode in the 95 west is opening out larger, and is now fully 3 ft. wide, composed of quartz, capel, mundle, and a little yellow copper ore, a very promising looking lode, and ground easy for driving. In the 80 west the lode is 2½ ft. wide, composed principally of capel and mundle.

WEST OREBOR.—J. Andrews, Oct. 29: The lode in the 95 west is still looking very encouraging, and is now 3½ ft. wide, composed of quartz, capel, mundle, and copper ore, but as yet not sufficient of the latter to value. In the 80 west the lode is unproductive.

WEST GODOLPHIN.—T. Hodge, Francis Hodge, Oct. 27: The following bargains were set on Friday last:—The 92 north west, to six men; lode here is 2 ft. wide, producing a little tin. The 92 south east, to six men; lode 2 ft. wide, producing occasional stones of tin. We are approaching the crossing here, and expect an improvement after driving through it.—Fink Lode: The 80 fm. level west, to four men; lode small, producing a little tin. A stope in the back of the 80 east, to six men; lode worth 10s. per fathom. The 70 fm. level east, to two men; lode producing saving work for tin. The 60 fm. level west, to two men, the lode here is split, carrying a branch on both sides, which is coming together as we advance, when they unite we expect an improvement. The 50 west, to two men; lode worth 8s. per fathom; we have cut into a crossing in the forebreast, which may influence the lode until got through, but Bellingham's lode was very productive to the west of it, and being parallel here we expect the same result. A winze below the 50 to two men; lode worth 7s. per fathom. A rise in the back of the 50 to four men; lode worth 8s. per fathom. A rise in the back of the 40 to two men; lode worth 40s. per fathom. No. 1 stope in the back of the 40, east of rise, to two men; lode worth 4s. per fathom. No. 2 stope in the back of the 40, east of rise, to four men; lode worth 8s. per fathom. A stope in the back of the 40, east of caunter, to four men; lode here continues to hold out good promise; we have measured the ground, and calculate that 6 fms. more will bring us up to the perpendicular of the cross-course seen at surface. All our machinery is working well.

WEST PHOENIX.—William Rich, R. Glynn, Oct. 28: The drawing-lift is fixed at the 70. The trip-lift is completed, and Norris's engine-shaft is set to sink below the 70 at 18s. per fathom; the lode is large, regular, and well-defined. The 70 is set to drive east and west at 4s. and 5s. per fathom respectively. The lode has the same kindly appearance, but is without tin to value. There is a little more water coming from the end of the 50 west, but the lode is without other change to notice.

WHEAL BENNY.—Thos. Cocking: There is no important change to notice in either point in our underground operations since my last advice, still continues to yield fair stamping work for tin. The burning house and chambers will be completed by the end of the week. The flues to the stack will I hope be finished in a few days. All the machinery is in good working order.

WHEAL CASTLE.—Capt. J. Boyce, Oct. 25: The 80 fm. level south is being driven by two men and one boy; ground and lode much the same as last reported, worth 8s. per fathom for tin. The cross-cut west of 80 north is being driven by one man to cut the large lode we have seen at the 70. The cross-cut west at the 70 north to cut the Castle lode is being driven by one man and boy. Cross-cut west to cut the Castle lode, 60, south of shaft, is being driven by two men. The 3s cross-cut towards Forman's lode is being driven by five men and boy; ground much the same as last reported. In cross-cutting the lode at the 15 we find it is worth about 2s. per fathom for tin. We have one man and boy splitting and clearing the 15 south.

WHEAL OREBOR.—H. Phillips, Oct. 28: Setting Report: To drive the 155 west of new shaft, by six men, stent the month, at 6s. per fathom. We shall force on this point by the side of the lode until we reach the ore ground going down in the bottom of the 104. To drive the 144 east of new shaft, by four men, stent the month, at 7s. 10s. per fathom; the lode contains mundle, inter-

mixed with copper ore. To sink the winze on the south part of the lode at the 144 west of new shaft, by four men, stent the month, at 6s. per fathom; the part of the lode carried will yield 4 tons of copper ore per fathom. The north part will yield 3 tons of copper ore and 2 tons of mundle per fathom. To drive this level west, by four men, stent the month, at 5s. 13s. per fathom. We are pleased to state that the lode at this point is improving; the lode is opening out to 4 ft. wide, yielding 1 ton of copper ore and 2 tons of mundle per fathom. No. 1 stope in the back of this level, to six men, stent the month, at 5s. per fathom; the lode will yield 7 tons of copper ore and 2 tons of mundle per fathom. No. 2 stope, to six men, stent the month, at 5s. 15s. per fathom; the lode will yield 10 tons of copper ore and 4 tons of mundle per fathom. To stope the lode will yield 5 tons of copper ore and 2 tons of mundle per fathom. To stope west of said winze, by four men, stent the month, at 5s. per fathom; the lode will yield 9 tons of copper ore per fathom. To drive the 108 east of new shaft, by two men, stent the month, at 6s. 10s. per fathom; the lode contains more spar than hitherto, with water issuing from the breast. To drive the 72 east of new shaft, by two men, stent the month, at 6s. per fathom; the lode contains a little mundle. To sink the winze in the bottom of the 45, by two men, stent the month, at 10s. 10s. per fathom; the lode will yield 2 tons of copper ore and 2 tons of mundle per fathom. To drive the 48 east of new shaft, by two men, stent the month, at 8s. 10s. per fathom; the lode contains a little fluor-spar and mundle. We have suspended the stope in the back of the 132 east of winze to be filled with attle.

WHEAL GRENVILLE.—T. Hodge, Oct. 28: The 205 fm. level, east end, is worth 5s. per fathom. The 195, east end, is worth 11s. per fathom. The 175, east end, is worth 7s. per fathom. The 165, east end, is poor; we expect this to improve soon. The 155, east end, is poor and hard, letting out much water. The 130, west end, is worth 12s. per fathom. The 140, west end, is worth 9s. per fathom. No other change. The machinery throughout the mine is working very well, and all surface work is being pushed on with all despatch.

WHEAL PEEVOR.—W. T. White, Oct. 31: We have no particular change to report in connection with the mine. All the bargains are being pushed forward rapidly, especially the driving of the 30 cross-cut north to the new tin lode. We have six men in the cross-cut, and the ground being favourable for driving, the price being 4s. 15s. per fathom, a satisfactory progress is being made. We have gone through some fathoms now of good tin ground in the 15 west of the new tin lode, and have this month set a rise in back of this level, directly behind the end. We have a very fair lode in the rise, and is worth 8s. per fathom. We have no other change.

WHEAL UNY.—W. Hamby, Oct. 30: Setting Report: Hind's engine-shaft to sink below the 203 by 12 men, at 30s. per fathom. This shaft is down 8 fms. 2 ft. below the level; the part of the lode carried for the length of shaft, which is 14 ft. long, is worth 22s. per fathom. The 203 end to drive west of shaft by six men, at 3s. 5s. per fathom; the lode is the full size of the end, and worth 6s. per fathom. The stope in the back of this level is working by eight men, at 6s. per ton of stuff, and the lode for 6 ft. wide is worth 20s. per fathom. We have two stopes working west of old sump shaft, one in the bottom of the 193 by six men, at 7s. per ton of stuff, and worth 10s. per fathom for tin; the other in the back of this level on the copper part of the lode, which is worth for copper 10s. per fathom. There are 12 tribute pitches working throughout the mine at tributes from 5s. to 15s. 4d. in 12. All the machinery on the mine is in good order and working well.

NORTH BUSY MINE.—Another parcel of 20 tons of copper ore, for sale in next Redruth ticketing, has been sampled from the recent discovery. The lode makes rich ore, and it can be cheaply worked. The lodes are being drained by the deep county adit, thus saving all expensive pumping charges. This is a very important item in these depressed times.

MINING EXPERT (Experienced) WANTED, to go out to Mexico to REPORT on Copper Mines. Must have a practical knowledge of copper ores, both in working and smelting. Address, "No. 90," KEITH and Co., 63, George-street, Edinburgh.

MANAGER OF GOLD MINE. WANTED, a Gentleman to MANAGE GOLD MINES in the TRANSVAAL. Must thoroughly understand Quartz and Alluvial Gold Mining, and the Treatment of Ores containing Gold. Address, stating particulars and amount of salary required, to "X. Y.," care of Davies and Co., Advertising Agents, Finch-lane, Cornhill, E.C.

HOME MINES TRUST, LIMITED.

INCORPORATED UNDER THE COMPANIES ACTS, 1862 TO 1880.

DIRECTORS' REPORT

To be presented to the Shareholders at the General Meeting, to be held at the Cannon-street Hotel, London, E.C., on Monday, the 3rd November, 1884, at Two P.M.

TO THE SHAREHOLDERS,

In laying before you the result of the operations of the "Trust" since the date of the last General Meeting, the Directors have much pleasure in calling your attention to the continued prosperity and stability of the undertaking.

On reference to the accounts, it will be seen that since the date of the last Balance-Sheet, the gross profits, exclusive of £139 18s. 4d., brought forward from last account, amount to £25,132 17s. 1d., apportioned in the following manner, namely:—£779 9s. 10d., General Working Expenses; £16,776 0s. 9d., Interim Dividends, less £2500 Dividend declared at the last General Meeting; £7500 to Reserve Fund; leaving £2717 4s. 10d. available for present distribution, which the Board propose to deal with as follows:—To pay the Quarterly Dividend at the rate of 10 per cent. per annum, which amounts to £2500, and to carry forward the balance of £217 4s. 10d.

It will also be observed that in addition to the Interim Dividends already paid, and the amount now proposed to be distributed, the sum of £7500 has been added to the Reserve Fund, which contrasts very favourably with the amount of £500 placed to that Fund in the last Balance-Sheet, and that the Stocks and Shares held are valued in the Balance-Sheet at the cost price—namely, £94,590 18s. 3d., but if taken at their present market value they would represent at least 20 per cent. more than the entire paid-up Capital of the "Trust;" moreover, there is the sum of £798 16s. advanced on Securities.

The field of the "Trusts" operations is very large, and, judging from past experience, its future should be one of continued prosperity.

In compliance with the terms of the constitution of the "Trust," one of the Directors retires, but being eligible offers himself for re-election.

HOME MINES TRUST (LIMITED).

BALANCE-SHEET AT 30TH SEPTEMBER, 1884.

Dr.		Cr.
To Capital Account—Authorised Capital 250,000 Shares of £1 each	£250,000 0 0	
By Shares held in Sundry Cornish Mines, taken at Cost Price		£94,590 18 3
By Shares held in Investment Account, being Investments in Debentures, Stocks, &c.		5,000 0 0
By Sundry Debtors (Secured)		793 16 0
By Cash at London and South-Western Bank		10,337 6 5
Capital Issued—100,000 Shares of £1 each, fully paid	£100,000 0 0	
Reserve Fund as per last Balance-Sheet	500 0 0	
Reserve Fund added since	7,500 0 0	
	8,000 0 0	
Sundry Creditors for Unclaimed Dividends		9 15 10
Balance to Credit of Revenue Account Transferred	2,717 4 10	
	£110,727 0 8	

REVENUE ACCOUNT FROM 1ST MARCH, 1883, TO 30TH SEPTEMBER, 1884.

Dr.		Cr.
To Stocks and Shares on hand 28th February, 1883, at Cost price, as per last Balance-Sheet	£25,000 3 6	
Purchase of Stocks and Shares since the above date, at Cost price	192,370 0 1	
Gross Profit carried to Net Revenue Account	12,075 10 0	
	£230,354 13 7	
By Sales of Stocks and Shares		£135,753 15 4
By Stocks and Shares in hand, 30th September, 1884, at cost price as per Balance-Sheet		94,590 18 3
		£230,354 13 7

NET REVENUE ACCOUNT FROM 1ST MARCH, 1883, TO 30TH SEPTEMBER, 1884.

Dr.		Cr.
To Interim Dividend to 31st March, 1883	£2,500 0 0	
" " 30th September, 1883	7,000 0 0	
" " 31st March, 1884	2,500 0 0	
" " 30th June, 1884	2,500 0 0	
	£12,500 0 0	
Less Income Tax	223 19 3	
	£12,276 8 7	
To Reserve Fund		7,500 0 0
Director's Fees		475 0 0
Secretary's Salary, Bank and Law Charges, Office Rent and Expenses, and Audit Fee		304 9 10
Balance carried to Balance-Sheet		2,717 4 10
	£27,772 15 5	
By Gross Profits brought down		£12,276 8 7
Commission on Shares Account		8,842 6 0
Interest, Dividends, &c., on Investments and Advances		1,903 19 6
Premiums on New Shares		1,334 10 0
Transfer Fees, &c.		76 11 7
Balance to Credit of Revenue Account, as per last Balance-Sheet		2,539 18 4
		£27,772 15 5

We find the above Accounts to be a correct Abstract of the Company's Books, the items in which are duly vouched. We have also examined the Securities held by the "Trust;" these are taken in the Balance-Sheet at cost price. From Brokers' Certificates exhibited to us, it appears that the value of the Shares held, at current market prices, is above the cost as set forth in the Accounts.

WOODLEY SMITH & CO., Chartered Accountants

London: 28, Budge Row, Cannon Street, Oct. 30th, 1884.

TO THE METAL TRADE.

FOR COPPER, TIN, LEAD, &c., apply to—
MESSRS. PELL, BOYLE, AND CO.,
SWORN METAL BROKERS,
ALLHALLOWS CHAMBERS, LOMBARD STREET, LONDON.
(ESTABLISHED 1849.)

HENRY NUTT,
BIRMINGHAM,

PURCHASER OF
LEAD ASHES, LEAD SLAGS, SULPHATE OF LEAD, TIN
ASHES, TERNE ASHES, AND ALL REFUSE CON-
TAINING TIN AND LEAD.

COPPER AND SPelter COMPANIES
DESIRING TO

INCREASE their SALES and CONNECTION with Leading
Houses, should send description, prices, and
best Agents' terms to

HOWARD LANE AND CO.,
115, 116, PALMERSTON BUILDINGS, OLD BROAD STREET,
LONDON, E.C.

HENRY WIGGIN AND CO.,

(LATE EVANS AND ASKIN),
NICKEL AND COBALT REFINERS,
BIRMINGHAM.

The Mining Market: Prices of Metals, Ores, &c.

METAL MARKET—LONDON, OCT. 31, 1884.

IRON.	£ s. d.	English, ingot, f.o.b.	£ s. d.	English, ingot, f.o.b.	£ s. d.
Pig, G.M.S., f.o.b., Clyde...	2 2 3	77 13 0	78 0 0	77 13 0	78 0 0
Scotch, all No. 1...	2 3 5	78 10 0	79 0 0	78 10 0	79 0 0
Bars Welsh, f.o.b. Wales...	4 17 6	79 10 0	80 0 0	79 10 0	80 0 0
" in London...	5 7 6	79 10 0	80 0 0	79 10 0	80 0 0
" Stafford...	6 7 6	79 10 0	80 0 0	79 10 0	80 0 0
" in Tyne or Tees...	5 0 0	79 10 0	80 0 0	79 10 0	80 0 0
Swedish, London...	8 15 0	79 10 0	80 0 0	79 10 0	80 0 0
Rails, Welsh, at works...	4 17 6	79 10 0	80 0 0	79 10 0	80 0 0
Sheets, Staff, in London...	7 5 3	79 10 0	80 0 0	79 10 0	80 0 0
Paper, ship, in London...	7 10 0	79 10 0	80 0 0	79 10 0	80 0 0
Hops, Staff...	6 7 6	79 10 0	80 0 0	79 10 0	80 0 0
Nail rods, Staff, in Lon...	5 0 0	79 10 0	80 0 0	79 10 0	80 0 0
STEEL.					
English spring...	12 0 0	79 10 0	80 0 0	79 10 0	80 0 0
cast...	10 0 0	79 10 0	80 0 0	79 10 0	80 0 0
Swedish, keg...	13 0 0	79 10 0	80 0 0	79 10 0	80 0 0
" flag, lum...	4 12 6	79 10 0	80 0 0	79 10 0	80 0 0
Rails at works...	5 12 6	79 10 0	80 0 0	79 10 0	80 0 0
" Light, at works...	5 12 6	79 10 0	80 0 0	79 10 0	80 0 0
LEAD.					
English pig, common...	10 17 6	79 10 0	80 0 0	79 10 0	80 0 0
" L.B. ...	11 0 0	79 10 0	80 0 0	79 10 0	80 0 0
" W.B. ...	11 0 0	79 10 0	80 0 0	79 10 0	80 0 0
" sheet and bar...	11 12 6	79 10 0	80 0 0	79 10 0	80 0 0
" pipe ...	13 0 0	79 10 0	80 0 0	79 10 0	80 0 0
" rel ...	14 0 0	79 10 0	80 0 0	79 10 0	80 0 0
" patent shot ...	14 0 0	79 10 0	80 0 0	79 10 0	80 0 0
Spanish ...	10 11 3	79 10 0	80 0 0	79 10 0	80 0 0
NICKEL.					
Metal per cwt. ...	—	79 10 0	80 0 0	79 10 0	80 0 0
Ore 10 percent per ton ...	—	79 10 0	80 0 0	79 10 0	80 0 0
SPELTER.					
Italian ordinary brand...	14 10 0	79 10 0	80 0 0	79 10 0	80 0 0
special brand...	14 15 0	79 10 0	80 0 0	79 10 0	80 0 0
English Swansea ...	15 0 0	79 10 0	80 0 0	79 10 0	80 0 0
Sheeting ...	17 10 0	79 10 0	80 0 0	79 10 0	80 0 0

* At the works, 1s. to 1s. 6d. per box less for ordinary; 10s. per ton less for Canada; 1X 6s. per box more than 1C quoted above, and add 5s. for each X. True plates 2s. per box below tin-plates of similar brands.

REMARKS.—A sensitive tone still pervades our market, and whilst prices for some metals are fluctuating others remain steady. There are undoubtedly many adverse features in the market at the present time, and they are of sufficient importance perhaps to prevent any thorough substantial and prolonged improvement. At the same time the depression is undoubtedly intensified by the numerous unfavourable reports which are constantly being circulated throughout the markets of trade depression, and it is possible too much credence is given to such reports. They tend to unsettle the feeling, to weaken the tone, and disturb the market. It is but natural that the pessimists, those who have been bearing the markets for months past, and have vast interest in the keeping down of prices, should be ready to encourage the free expressions of gloomy views, and they are greatly assisted by the veracity of their opinions having been only too prominently pronounced by the great so-called stagnation which has characterised business for several months past. But the question for solution is—Whether the trade is really as bad as these reports indicate? True, trade is very feeble, but the various adverse state business to be somewhat more limited than what is really the case. To illustrate our point let us take, as examples, what are recognised as the three leading metals—iron, copper, and tin, and compare their position now with what they were a year ago. This will give us a me indication of the volume of business executed during the past 12 months. In any one particular month or week business may have been quieter than what it was last year, arising from special causes, and, therefore, no particular importance need be attached to it. But looking at these three trades now, and comparing them with what they were at the same time of last year, the result of the investigation is very striking.

In iron the public stock at Glasgow is now nearly 10,000 tons less than what it was this time last year, and the price about 2s. lower. At Middlesbrough the stock is 14,000 tons less, and the price 2s. cheaper. In copper the stock is about 9000 tons less, and the price 10s. lower. In tin the stock is about 2000 tons less, and the price 20s. cheaper. How, then, are these enormous reductions in stocks to be accounted for, if, as these reports would have us believe, the trade has been so much curtailed? It might be urged—by reduced supplies; but not so, everything shows that supplies have greatly increased. If in iron the makers' private stocks should have increased, the increase is fully, if not more than, counterbalanced by the great diminution that has been effected in public stocks, and the whole increase in supplies has, therefore, been swallowed up. Passing on to copper we find that the increase in supplies during the past 12 months is about 9000 tons in excess of what they were during the previous 12 months, whilst those for tin have been much about on a par. Therefore, the actual volume of business has, in other words, been increased this year by the enormous reductions in stocks, plus the increase in supplies.

We have shown it, and proved it by facts and by figures, which no man can dispute, and these facts should be borne in mind in the midst of all the discouraging reports which are so constantly afloat. Profits are less, as is evidenced by the low prices, but more business has been done, and it is to be hoped that in many cases the deficiency in profits has thus been compensated. It has not been so in all instances; the cheapest sellers have had the bulk of the business, and the complaints come from those who sell the higher class brands, many of whom have preferred to close their works than sell at current prices. However, we have said enough to prove that the amount of business done has been large and increasing, and buyers who have been so freely availing themselves of the present low rates cannot do better than continue to purchase at the exceptionally cheap prices now ruling for all metals.

COPPER.—Business in this metal has been quiet, and further reduced rates have been accepted for Chili bars. The downward tendency of prices is causing a little uneasiness amongst holders, and many of them are apt to take a very gloomy view of the present state of the market, and, therefore, have not been unwilling to make concessions in price, in order to rid themselves of their stocks. Transactions upon each day have been carried through at somewhat under the official quotations, and, whilst this feeling of uneasiness pervades the whole market, it is not likely that any improvement of a marked character will take place. We must wait for the tone to change before the numerous favourable features will be allowed to exercise their customary influence; and, in the meantime, one of the most favourable opportunities is given to those who will shortly be requiring copper to purchase upon the most favourable terms that have ever been known in the history of the copper trade. The good deliveries indicate that many consumers have already availed themselves of these remarkably cheap prices; and, if prices are kept down much longer at their present very low and unremunerative figures, the consumption of copper must of necessity increase to an enormous extent.

It is true that present supplies are heavy, but they are not adequate to the constantly growing demand. The result is that if general business and outward events keep prices down at their present rates the comparatively light stocks must soon be consumed or greatly diminished, a fact which would have the result of pushing up prices to perhaps a rather high figure. However, there may be no immediate advance, because operators are nervous, and some holders are not backward in pressing sales, but it seems impossible for prices to keep down much longer at present quotations, and there is every reason to expect that the deliveries will continue to be sustained. Chili bars have this week touched a lower figure than has ever been known before, a feature which would be striking at any time, but still more so now in face of the considerably reduced stocks.

IRON.—This market continues extremely quiet, and the demand appears to become more and more contracted. Short time is now very prevalent at most of the works throughout the whole country. There is no branch of the trade brisk, and scarcity of orders for

all descriptions is a common feature throughout the whole trade. Low and unremunerative prices fall entirely to stimulate the demand, and the tone is very gloomy and depressed. There is a marked absence of work amongst the employed, and the amount of distress that is threatened during the coming months seems likely to prove very great, unless a revival in the trade should take place. The probabilities of that revival, however, do not seem very great nevertheless there are few sanguine enough to anticipate a speedy restoration to better times, based chiefly upon the improved tone which has characterised the Scotch warrant market during the past few days. The feeling in Scotland has certainly become a little more hopeful, but the favourable turn in the market is not as yet sufficiently pronounced to prove whether it is likely to be of permanent duration or not.

The most unfavourable feature in the market at Glasgow is the continued light shipments. They are light in comparison with corresponding weeks, week after week there being invariably a deficiency compared with the same time of last year; but the comparison is not only unfavourable with last year, but the shipments are also less for the whole of 1884 than they have ever been for the same time during the last six years—a fact which bespeaks a declension of trade—a declining business and a most unsatisfactory state of affairs. On the other hand, there are the favourable features in the market, such, for instance, the constantly reduced stocks in public stores, which circumstance, taken in connection with the very low prices that is now being quoted, may be the probable cause of the slightly improved tone in the market. There is but a moderate business doing in makers' iron, and prices all round are steady, although without any appreciable and quotable alteration. The Glasgow warrant market has been tolerably active this week, and after opening on Monday at 42s. 15d., there was good business done up to 42s. 35d., and on Tuesday transactions were extensive, and the price varied between the same figures as on the previous day, closing at the higher price. On Wednesday the market was strong, and a large business was done between 42s. 45d. and 42s. 7d.; but yesterday, although a large business was done, the price was not sustained at the high figure at which it opened, the quotation being 42s. 11d. to 42s. 3d., and the closing figure to-day is 42s. 8d. to 42s. 9d.

The shipments last week were 10,356 tons, against 12,758 tons for the same week of last year, being a decrease of 2,402 tons, and which makes the total shipments for the whole of this year 463,543 tons, against 516,822 tons for the similar period of 1883, and 537,017 tons for the same time of 1882. There are still 95 furnaces in blast, and the public stock has been further reduced by 425 tons, and now amounts to 580,747 tons, against 581,162 tons last week. The imports of Middlesbrough pig-iron into Grangemouth last week were 5728 tons, against 5985 tons for the same time of last year, being a decrease of 257 tons, and which makes a total decrease for the whole of this year compared with last of 8928 tons. The Cleveland market has been quiet, but steady, last week's rates being with a tolerable amount of fairness sustained. Shipping orders for makers' iron have been pretty brisk for prompt delivery, and the ruling quotation for No. 3 is 36s. 3d., and for No. 4, 36s. 3d. Second-hand lots of No. 3 are offering at 36s. 15d., and for forward prompts, 36s. The public stock shows a reduction for the week of 120 tons, and is now estimated at 53,509 tons. Shipments last week were about 17,000 tons, and for the whole month they have been about 73,000 tons. Business in manufactured is still quiet, and prices are unchanged, bars being quoted at 54s. 2s. 6d., angles at 4s. 15s., and ship-plates at 54s. per ton.

As deliveries from Wolverhampton report some fair enquiries for sheets, and some mills are well off for price. Prices are strong at 72s. for singles, and 72s. 10s. for doubles. Gas and nail strips can be bought at 54s. 15s., common hoops and angles are quoted at 54s., and Tees at 54s. 15s. There have been some fair deliveries made in pigs, and Northampton are quoted at 40s. to 41s., and hematite at 55s. per ton. The report from Birmingham shows that there is very little animation in that market, and new business is restricted for all classes of iron, at the same time some makers and manufacturers appear to be a little brisker with specifications that have lately been given out. Quotations for sheets and angles are without much tendency of prices is easy, particularly for manufactured iron. The principal demand is for sheets, prices for which are rather stronger than for other descriptions. Only small sales have been made in pigs, and there is a strong competition for all orders in the market.

TIN.—A fairly large business has continued to be transacted in this metal, and prices have varied to some extent. During the first three days of the week prices continued to fall without the slightest effort being put forward to stay the retrogressive tendency, and the result was that on Wednesday prices touched 73s. 6s. for cash parcels of foreign. This downward course was accelerated by rumours, which appear to have been well founded, of increased supplies, chiefly from the Straits, and as increased supplies is a feature which would have the most unfavourable influence over the market at the present time on account of its very sensitive condition, the falling prices were not surprising, though it may be clearly opened to question whether the heavy fall that has now been effected has been warranted by the actual state of the market. However, yesterday there was a turn for the better, due chiefly to the favourable figure realised at the Billiton sale, a figure which was evidently higher than was generally anticipated, prices here recovering about 7s. 6d. per ton, but after which again becoming easier, and stronger.

The unsettled state of the market has been the cause of the low prices; but it is to the low prices that we must look to for an improvement. They ought to attract the attention of operators, and encourage the speculative demand, but this, of course, is a feature of secondary importance to the trade at large, though of primary interest to holders. What is of more consequence is the extra business likely to arise from the cheap rates. Hitherto at much higher figures deliveries have been very large, therefore with the present declension in prices a proportionately increase in the demand may be looked for, while at the same time the lower rates are likely to produce some wholesale check upon supplies, and in consequence reduced stocks are not improbable.

SPELTER.—There is nothing new to report, and we still quote ordinaries at 144s. 10s., and special brands at 144s. 15s. per ton.

LEAD is flat, with sellers of Spanish at 107s. 11s. 3d. and of English pigs 107s. 17s. 6d. to 111s. per ton.

STEEL.—The demand is decidedly better, particularly for rails; but prices are without quotable change.

TIN-PLATES.—Business is quiet, and prices remain as last quoted.

QUICKSILVER.—Nothing fresh to report.

The settlement of the usual fortnightly account has occupied the chief attention of the dealers in the MINING SHARE MARKET this week. For general business the market has been flat for all kinds of stock, and the quotations given are for the most part merely nominal. Among tin shares Wheal Agars have advanced to 17s., and business has been done in Dolcoath, Tincroft, West Frances, Prince of Wales, West Kitty, East Blue Hills, East Pool, and a few others.

TIN.—The standard, which was suddenly advanced on the 20th to 37s. per ton, was put down again 2s. before the week was out, and tin shares have been only moderately dealt in, and generally at lesser rates. Carn Brea, 3½ to 4; at the meeting, when a call, as announced last week, was made of 12s. 6d. per 6000 shares, or 3750s., the accounts showed an actual debt of 13,061 17s. 6d., that is 3193 17s. 2d. to merchants, 3871 17s. 6d. bills payable and due to bankers, 12,145 12s. 2d. the credit against these items, bringing the debit balance down to the amount stated. The accounts were brought down to Sept. 27. The tin sold in four months, 133 tons, realised 5664 17s., and resulted in a loss of 3780s., or nearly 1000s. a month. The chief feature in the report, and which caused the rise in shares, was the cutting of Teague's lode in the 216 cross-cut of new shaft. The lode so far as then seen had a kindly appearance, and produced some splendid stones of tin, and should it continue to improve, as the agents state, they have every reason to expect it will be one of the best discoveries made in Carn Brea for a number of years. Cook's Kitchen, 9 to 10; Dolcoath, 65 to 67; East Pool, 38 to 39; Killfret, 4 to 5; South Condurrow, 7½ to 8½; South Frances, 6 to 6½; Tincroft, 6½ to 7; West Basset, 1½ to 1½; West Frances, 5 to 5½; West Kitty, 8½ to 9; Wheal Agars, 17 to 17½; Wheal Basset, 1½ to 2; Wheal Grenville, 5½ to 6; Wheal Uny, 4½ to 5; East Blue Hills, 3-16ths to 5-16ths. Wheal Kitty (St. Agnes), 4½ to 5; at the meeting here to audit accounts extending over a period of 12 months a loss was shown of 480s., and but for the price of tin would have made a good profit. The sales consisted of 164 tons, and they realised 7887 17s. The debit balance was 1962 17s., but no call was made. Mounts Bay, 4 to 5-16ths; New Kitty, 1½ to 1½; Pedn-an-drea, 1½ to 1½; South Crofty, 1½ to 1½; South Kitty, 2 to 2½; Trevaunant, 1½ to 2; Trevaunant, 1½ to 2-16ths; Polberron, 2 to 2½; West Polberron, 1½ to 2.

COPPER.—Business has been rather weaker, and very little business transacted in shares, which are, generally speaking, very quiet, and quotations nominal. Bedford United, 1½ to 1½; Devon Great Consols have declined to 1½ to 1½; Gunnislake (Clitters), 4 to 5; Marke Valley, 4 to 5; New West Caradon, 4 to 5-16ths. Prince of Wales, 4 to 5; the lode in the 102 east is worth 12s. per fathom, but looking well for improvement. South Caradon, 4 to 5; West Caradon, 1-16th to 2; West Crebor, 1-16th to 2; Wheal Crebor, 1 to 1½; the points in operation are valued in the aggregate at 41 tons of copper ore and 14 tons manio per fathom.

New Caradon, 2s. to 3s. c.p.; at the meeting accounts as presented showed a balance of assets over liabilities of 103s. 16s. 7d., and a call of 1s. per share was made. The report states that the lode out in the 50 fm. level is now 3½ to 4½ ft. wide, saving work for copper, and the agent is now satisfied in recommending the shaft to be sunk at once, as the lode presents indications that can hardly fail to prove very productive for copper ore. Worked by water power, with pit-work all in good order, "it would be difficult to find another mine of such promise that could be more cheaply proved." Devon Friendship, 4 to 5-16ths; New Cook's Kitchen, 4 to 5.

LEAD is not quite so firm, and there is nothing doing in shares. Vans are quoted 4 to 5; operations commence on Monday. Great Laxey, 8½ to 9½; Roman Gravel, 3½ to 3½; Leadhills, 1½ to 1½; East Wheal Rose, 5-16ths to 6; New Langford, 4 to 5; Minera, 5½ to 6½; Old Shepherds, 4 to 5. South Darren, 3-16ths to 5-16ths; and no change to report; 25 tons lead ore will be sampled this week for sale on Nov. 7. Standard, 1½ to 1½; Weardale, 1½ to 1½.

FOREIGN MINE shares seem to have participated this week in the general depression, and quotations are, with few exceptions, nominal. Alamillos, 1½ to 1½; Almada and Tiritio, 1-16th to 3-16ths; Austral, 1½ to 2; Balkis, 1-16th to 2; Birdseye, 4 to 5; Bratsberg, 1 to 1½; California, 4 to 5; the telegram dated Thursday says:—Mills ran 457 tons; yield \$2500 (5000). Callao Bis, 9-16ths to 11-16ths; Copacabana, 1½ to 2; Chile, 1-16th to 3-16ths; Chontales, 1-16th to 3-16ths; Colorado United, 1½ to 2½; Colombian Hydraulic, 4 to 5; Copiapo, 2½ to 3½; Eberhardt, 3-16ths to 5-16ths; Fortuna, 2½ to 3½; Frontino and Bolivia, 4 to 5; during August 2396 tons from general mines produced (= 17 dwts. per ton) 2020 ozs., and the gold bought was 120 ozs. = 2140 ozs., worth, including exchange, 6076 16s.; the cost at the mines at Medellin and in London was 5473s. 11s.; monthly allowance for freight, commission on gold sales, and sundry fluctuating outlays not immediately ascertainable (estimated at) 250s.; paid for gold bought of tributors, 230s. 15s. 5d. = 5954 17s. 5d., leaving estimated profit 122 17s. 8d. Mr. Donagan's health had improved, and he has been able to give constant attention, in conjunction with Mr. Clemen, to the position of the mines. He expects to effect considerably economy in the cost of production. The directors have not yet received any report direct from Mr. Clemen, as to the state of the mines, and they can, therefore, only say that the information that has reached them, more especially as to the amount of the reserves in the Salada Mine, is not of so encouraging a character as they had been led to expect. Mr. Donagan believes that he and Mr. Clemen will have concluded their inspection during October, and will be able to return to England by the mail steamer arriving about the end of November. At Antioquia (Frontino) the mineral and attle crushed produced 150 ozs. gold. Estimated worth, including exchange, 454 18s.; the cost at the mines at Medellin, and in London was 343s. 1s. 2d.; leaving estimated profit, 111 16s. 10d.; against which 92s. 4s. had been spent on capital account.

Indian Consolidated, 1-16th to 3-16ths; Kapanga, 1-16th to 3-16ths; Lake Superior Copper, 1-16th to 3-16ths; La Plata, 3-16ths to 5-16ths; Linars, 2½ to 3½; Lisbon-Berlyn, 4 to 5; Marbella, 2 to 2½; Massey and Barry, 8½ to 8½; Montana, 1 to 1½; Mysore Gold, 1-16th to 1-16th; Nadenes, 4½ dia. par; the value of the ends is increasing. The north lode is improving, and the mine looking well. There are 200 tons of ore ready for roasting, and 40 tons of dressed ore. New Callao, 4 to 5; New Emma, 4 to 5; New Potosi, 4 to 5; Nundydrog, 4 to 5; Oregum, 1-16th to 3-16ths; Organos, 4 to 5; Orita, 1 to 1½; Orono, 12s. 6d. paid, 4 to 5; Panulicillo, 3½ to 3½; Richmond, 3½ to 4; Rio Tinto, 13½ to 14; ditto Bonds, 97 to 99; ditto Second Mortuary, 89 to 91; Ruby and Dunderberg, 4 to 5; Santa Barbara, 4 to 5; Schwabs Gully, 6 to 6½. South Australian Mines Corporation, 1-16th to 3-16ths; the reports from the Blinnan Mine continue to be satisfactory. Instructions have been sent to Captain Bryant to proceed to America to inspect and report on the system of smelting by water-jacket furnaces. Should this process prove a success at Blinnan, it is estimated a saving will be made of at least 3000s. a year alone in railway charges, besides enabling the low percentage ores to be utilised, of which there are many thousands of tons.

Spitzkop, 9-16ths to 11-16ths; the directors have received information from their manager at Spitzkop (Mr. J. A. Stone) to the effect that he has made good progress in the several shafts which he is now sinking, and that the four shafts on Silo hill show most encouraging prospects. He reports that he has found fine flour-gold in nearly all parts of the ground, and that the shaft first commenced shows the rotten reef splendidly, and prospects equal to anything he has seen. He states that the ground on Silo hill is very extensive, and exceedingly rich, and that it cannot fail to produce most satisfactory results. St. John del Rey, 6s. to 7s.; Tharsis, 5½ to 6½; Tolima, A, 6½ to 6½. United Mexican, 3½ to 4; the usual telegram says: The excess of returns over outlay on the Mine of San Cayetano de la Ovejera for the week ending Oct. 25 is \$6300. Excess of outlay for the Mine of El Diamante \$500. Victoria, 4 to 5; West Callao, 3-16ths to 5-16ths.

no change to report; 25 tons lead ore will be sampled this week for sale on Nov. 7. Standard, 1½ to 1½; Weardale, 1½ to 1½.

FOREIGN MINE shares seem to have participated this week in the general depression, and quotations are, with few exceptions, nominal. Alamillos, 1½ to 1½; Almada and Tiritio, 1-16th to 3-16ths; Austral, 1½ to 2; Balkis, 1-16th to 2; Birdseye, 4 to 5; Bratsberg, 1 to 1½; California, 4 to 5; the telegram dated Thursday says:—Mills ran 457 tons; yield \$2500 (5000). Callao Bis, 9-16ths to 11-16ths; Copacabana, 1½ to 2; Chile, 1-16th to 3-16ths; Chontales, 1-16th to 3-16ths; Colorado United, 1½ to 2½; Colombian Hydraulic, 4 to 5; Copiapo, 2½ to 3½; Eberhardt, 3-16ths to 5-16ths; Fortuna, 2½ to 3½; Frontino and Bolivia, 4 to 5; during August 2396 tons from general mines produced (= 17 dwts. per ton) 2020 ozs., and the gold bought was 120 ozs. = 2140 ozs., worth, including exchange, 6076 16s.; the cost at the mines at Medellin and in London was 5473s. 11s.; monthly allowance for freight, commission on gold sales, and sundry fluctuating outlays not immediately ascertainable (estimated at) 250s.; paid for gold bought of tributors, 230s. 15s. 5d. = 5954 17s. 5d., leaving estimated profit 122 17s. 8d. Mr. Donagan's health had improved, and he has been able to give constant attention, in conjunction with Mr. Clemen, to the position of the mines. He expects to effect considerably economy in the cost of production. The directors have not yet received any report direct from Mr. Clemen, as to the state of the mines, and they can, therefore, only say that the information that has reached them, more especially as to the amount of the reserves in the Salada Mine, is not of so encouraging a character as they had been led to expect. Mr. Donagan believes that he and Mr. Clemen will have concluded their inspection during October, and will be able to return to England by the mail steamer arriving about the end of November. At Antioquia (Frontino) the mineral and attle crushed produced 150 ozs. gold. Estimated worth, including exchange, 454 18s.; the cost at the mines at Medellin, and in London was 343s. 1s. 2d.; leaving estimated profit, 111 16s. 10d.; against which 92s. 4s. had been spent on capital account.

Indian Consolidated, 1-16th to 3-16ths; Kapanga, 1-16th to 3-16ths; Lake Superior Copper, 1-16th to 3-16ths; La Plata, 3-16ths to 5-16ths; Linars, 2½ to 3½; Lisbon-Berlyn, 4 to 5; Marbella, 2 to 2½; Massey and Barry, 8½ to 8½; Montana, 1 to 1½; Mysore Gold, 1-16th to 1-16th; Nadenes, 4½ dia. par; the value of the ends is increasing. The north lode is improving, and the mine looking well. There are 200 tons of ore ready for roasting, and 40 tons of dressed ore. New Callao, 4 to 5; New Emma, 4 to 5; New Potosi, 4 to 5; Nundydrog, 4 to 5; Oregum, 1-16th to 3-16ths; Organos, 4 to 5; Orita, 1 to 1½; Orono, 12s. 6d. paid, 4 to 5; Panulicillo, 3½ to 3½; Richmond, 3½ to 4; Rio Tinto, 13½ to 14; ditto Bonds, 97 to 99; ditto Second Mortuary, 89 to 91; Ruby and Dunderberg, 4 to 5; Santa Barbara, 4 to 5; Schwabs Gully, 6 to 6½. South Australian Mines Corporation, 1-16th to 3-16ths; the reports from the Blinnan Mine continue to be satisfactory. Instructions have been sent to Captain Bryant to proceed to America to inspect and report on the system of smelting by water-jacket furnaces. Should this process prove a success at Blinnan, it is estimated a saving will be made of at least 3000s. a year alone in railway charges, besides enabling the low percentage ores to be utilised, of which there are many thousands of tons.

Spitzkop, 9-16ths to 11-16ths; the directors have received information from their manager at Spitzkop (Mr. J. A. Stone) to the effect that he has made good progress in the several shafts which he is now sinking, and that the four shafts on Silo hill show most encouraging prospects. He reports that he has found fine flour-gold in nearly all parts of the ground, and that the shaft first commenced shows the rotten reef splendidly, and prospects equal to anything he has seen. He states that the ground on Silo hill is very extensive, and exceedingly rich, and that it cannot fail to produce most satisfactory results. St. John del Rey, 6s. to 7s.; Tharsis, 5½ to 6½; Tolima, A, 6½ to 6½. United Mexican, 3½ to 4; the usual telegram says: The excess of returns over outlay on the Mine of San Cayetano de la Ovejera for the week ending Oct. 25 is \$6300. Excess of outlay for the Mine of El Diamante \$500. Victoria, 4 to 5; West Callao, 3-16ths to 5-16ths.

THE MARKET FOR MINE SHARES on the Stock Exchange has been dull throughout the week, and with few exceptions prices have been lower. Copper, tin, and lead all show further decline, although to a small extent only, and the raising of the minimum Bank Rate from 3 per cent. to 4 per cent. yesterday is not likely to produce a favourable effect on prices, although it is frequently observable that new companies, of which several are said to have their prospectuses ready for issue, more easily obtain their capital when a moderate minimum rate rules than when it is very low. To-morrow (Saturday) being a holiday on the Exchange, there was little disposition to commence new business to-day; but at the close the feeling generally prevailing with regard to the future prospects of the metal trades and of the share markets was decidedly more favourable.

Our usual telegram from Cornwall this evening says:—During the past week the Cornish Share Market has been quiet, with a fairly firm tone considering the depressed state of the tin market. Dealings have been principally confined to Dolcoaths, East Pool, Wheal Agars, Tincroft, Pedn-an-drea, Carn Brea, and West Frances; and most of these mines seem in improving circumstances and increasing in favour. At Tincroft account a 5s. call was made to meet a loss of 1470s. The purser referred most hopefully to the prospects of the mine, which had not looked more encouraging for years. Alluding to Carn Brea, he said that the lode had been cut through,

on the most improved principles. The cost, it is anticipated, for works capable of producing 1500 tons of salt per week will be about 12,000. This includes the cost of sinking of a shaft. It is hoped that from the concessions obtained by the company a profit of 5000 would be realised. The demand for salt in the Winsted district is yearly increasing.

Devon Great Consols, 2½ to 3; the eastern shaft in the Wheal Maria part of the mine has been sunk on the course of a lode from 4 to 5 ft. wide about 15 ft. during the past month, producing good quality munda and copper ore, and there is every probability of shortly meeting with a rich course of mineral in further sinking.

Devon Great United, ½ to ¾; the ordinary general meeting of shareholders and extraordinary meeting were held on Wednesday. It was stated that the last two months' sale of copper ore realised 4100 15s., whilst the two cost sheets for the same period amounted to 4771 8s. 4d., and the loss shown was only about 342 per month, notwithstanding the depressed prices of copper now prevailing—probably, as was stated, about the lowest during the last 100 years. A practical and cordial discussion took place as to the best means of finding the comparatively small amount of capital required for sinking the shaft deeper and driving the levels, so as to get under the rich course of copper ore reported as being worth 3 to 4 tons per fm. in the bottom level. A unanimous vote of thanks was passed to the Chairman, directors, and officers of the company, and it is believed from the tone of the meeting, and the feeling expressed by some of the large shareholders absent, that the necessary capital will be forthcoming. A further meeting is to be held, when proposals will be submitted for further consideration.

Drakewalls, ½ to ¾; it appears that by the agent's report that the bottom, or 102 fm. level, has been cleared, and yesterday the sinking of the engine-shaft below this level on the lode has been resumed, producing some good tin ore. The north lode maintains its size, producing fair quality tin stuff for the stamps.

Ecton, 1½ to 2½; there has been considerable business reported in these shares, the development of the recent discoveries in the Clayton Mine being watched with the deepest interest. All points of operation are being pushed forward with considerable spirit. At Waterbank all the machinery is now complete. At Salt's level, in the Ecton Mines, the copper carbonates are improving both in quantity and quality.

Kil Hill, ½ to ¾; in the Tunnel level the ground has been rather more favourable for exploring, having driven 15 ft. during the past week.

South Devon United, ½ to ¾; the ordinary meeting of shareholders was held on Thursday, and afterwards the extraordinary meeting. From the report of the directors it would appear that the loss per month is only about 800, and but for the personal feelings indulged in by one or two shareholders out of about 35 present, the meeting would have been of a more harmonious and practical character. As it was, however, only one shareholder, and that the proposer, voted for his amendment as against passing the report and accounts and re-election of directors. After the heated and unnecessary debate the meeting assumed a more practical tone as to the best mode of raising the small amount of capital necessary for the development of the property, and another meeting will be held to decide the best means of carrying out the suggestions which have been made for this purpose. The agent reports that the lode in Martin's shaft is worth 20¢ per fathom, and the 120 end west is worth 16¢ per fathom. The lode in No. 1 stope is worth 10¢, and the lode in No. 2 stope is worth 14¢ per fathom.

At Pedn-a-drea United Mines a great improvement is reported at the 100 fathom level east; the lode in the western end still holds good, having been driven 22 fathoms on its continuous course, with every prospect of permanency; the 120 fathom level will shortly commence driving east and west, which will open out a valuable section of ore ground.

Ruby and Dunderberg, ¾ to 1; the weekly report advises two discoveries of ore at the Lord Byron Mine, one of which—that at the bottom of No. 1 cave—is considered a very good prospect, as it is increasing rapidly in size as it goes down.

Treavans, 5-16ths to ¾; an advance of 1-16th, with very few shares on offer. There are many statements about the market as to a considerable extension of operations at the mine and more rapid development now that the lode is opening up so well. One of the leading operators in these shares "confidently asserts that instructions have already been sent to extend operations with all speed, so as to be prepared for the advance in the price of metals. That this property is but coming to the front as one of the greatest tin-producing mines is evidenced by the official reports which are published from time to time, and with full equipment and every labour-saving appliance already erected on the mine the shares are open for a good advance in price."

In LEAD MINE SHARES there has been virtually nothing doing, and the further decline of 2s. 6d. per ton in the price of lead is not calculated to make matters more encouraging. Roman Gravels are quoted 3½ to 3¾; the sale of lead ore this week is over 7300, and it is satisfactory to observe an advance of over 2s. per ton on last sales. The levels driving south continue to open out well.

Leadhills, 1½ to 1¾; the 10 below Gripps, driving south, has been commenced in a rich lode of lead ore worth 3 tons per fathom.

The North Queensland Gold Mining Company have obtained 492 ozs. 13 dwts. of gold from 240 tons of stone. The St. Patrick tribute got 212 ozs. 8 dwts. of smelted gold from 116 tons of stone.

Great Zarama Gold Mining Company announce, with regard to the issue of 25,000, 8 per cent. debentures, that the list of applications for them will close on Saturday next, Nov. 8.

The Quicksilver-Wave Amalgamator Company have removed their offices to 15, Coleman-street, E.C. (ground floor).

In Mr. A. Hay Anderson's letter on Indian Gold Mines, in last week's Journal, geographical was erroneously printed in the fifth line for geological.

The International Financial Society notify that they are prepared to pay, at the exchange of the day, the interest due November 1 on the bonds of the Imperial Royal Privileged Lemberg-Czernowitz-Jassy Railway Company (in anticipation of the conversion of the said bonds).

It is announced that the Council of Administration will be prepared to pay in London, on and after November 1, the coupon No. 35 of the Six per Cent. Debentures of the Ottoman Railway, from Smyrna to Aidin.

The Railway Debenture Trust Company announce the numbers of 83 bonds of the issue of 1,000,000. Five per Cent. Debentures that were drawn on Oct. 28 for payment in London, with interest, on Feb. 1 next, when the next interest coupon falls due.

MINING AS AN INVESTMENT.

HOME MINES TRUST.

The unprecedentedly low price of metals has been availed of by us as affording a reason for agitating for reduced royalties, for the imposition of import duties on lead, copper, and tin, and for various other things, which, although, perhaps, likely to be temporarily beneficial to a few dozen persons, are by no means a necessity to mining prosperity; but the declaration of dividends at recent meetings by several lead mines possessing no extraordinary facilities for earning profits proves that when investments are judiciously made dividends can still be paid, and the gratifying regularity with which the Home Mines Trust has issued its quarterly dividend warrant leaves no doubt that when risks are divided with judgment the distribution of profits becomes, with sound and honest management, an absolute certainty. Ten per cent. seems now to be the permanent dividend of the Home Mines Trust, and it would probably be well that the executive should restrict themselves to this percentage of dividend, and distribute any excess that may be earned in the shape of bonus. Capitalists prefer a regular 10 per cent. to intermittent dividends of larger amount, and they are always willing to receive in addition a bonus, whether it be of small or large amount.

The Home Mines Trust accounts prepared for presentation at the forthcoming meeting, and which have been certified by a well-known firm of chartered accountants, show that there was a turnover of nearly 200,000, and a profit of over 25,000. (the capital of the Trust being 100,000), yet the total working expenses were under 7800, so that, although the shareholders have received 16,776, as interim

dividends, and 7500, has been appropriated to reserve fund, there is still 21777 4s. 10d. available for present distribution—an amount which many would have been well satisfied with for total gross profit. Out of this the usual quarterly dividend of 10 per cent. per annum will be paid, and the balance of 2177 4s. 10d. will be carried forward. The relation of the working expenses to the profits is a very striking feature in the accounts—they amount to only 3 per cent., and it need scarcely be pointed out that if all public enterprises were carried on upon the principle of dividing the gross profits in the ratio of 97 per cent. to the shareholders, and 3 per cent. for working expenses, there is scarcely a mine in the kingdom that would fail to give handsome profits. The Home Mines Trust, to judge from the report and balance sheets referred to is in an exceptionally strong financial position, since, in addition to a reserve fund of 75000, there are available assets in the shape of stocks and shares in hand worth at cost 94,590, but saleable to-day fully at 20 per cent. more, and a balance at the bankers of considerably over 10,000. The enterprise has, without question, been judiciously, successfully, and economically managed, and 97 per cent. of the profitable results of that management has been actually paid over to the shareholders, or will be handed to them at the forthcoming meeting. The management reflects the highest credit upon all connected with it, and cannot fail to secure the confidence of capitalists and investors generally in any undertaking which the Trust may support.

NEDENES COPPER MINES.—Advices received this week state that the four stopes at Skytmur are worth 18 tons of copper ore. The rise above the 50 is worth 4 tons. The winze below the 30 is worth 4 tons. The 60 end is worth 1½ ton. The north lode is improving. There are 200 tons of the poorer ores ready for roasting, and 40 tons of the richer sort dressed. The mines are looking well. A full report is expected in a few days.

OSCAR GOLD MINE.—Under date Oct. 24 the managing director in Norway (Capt. Daw) writes—"We have a good mine in Oscar. The end driving north-east is very rich. It will take them all of this month (October) to get things in working order."

OWEN YEAN AND TREGURTHA DOWNS MINES.—The manager announces that a cross-cut from the 67 fathom level cut the south lode last week. A telegram received yesterday at the offices of the company from the resident engineer is as follows:—"Happy to say, lode at sixty-seven broken fairly all over produces 81 lbs. of tin per ton. Have written."

ORGANOS GOLD.—The report just received and published in another column is deemed satisfactory so far as it goes, as the quartz from the Te Enconré lode, yielding over 7 dwts. of gold per ton, must prove, as the mines can be worked so cheaply, very profitable when worked in bulk. The Te Enconré lode, as mentioned in recent reports, is very large and wide, and under the circumstances will probably require but very little opening out to enable the company to make large returns from this quarter, and it is therefore hoped and believed that future returns will be made at a greatly increased rate. The stamps are capable of crushing from 400 to 500 tons of quartz per month, and crushing at this rate would yield a very handsome profit. The company has at present no machinery capable of treating the pyrites, but this is a matter which, should the Te Enconré prove as good as is expected, may be taken in hand at any moment. It will doubtless be unwise to consider such a subject as this at the present time, as the Te Enconré lode is the only part of the company's property in which the gold is found mixed with the pyrites to any great extent.

ORITA GOLD.—Rapid progress is being made towards completion of the works, and that the commencement of a washing may, consequently, be expected at a early date. Mr. Welton has forwarded 18 photographs of the company's property, and of the works which have been carried out; they show the nature of the operations which are now being brought to completion, and give some idea both of the difficulties, which have had to be overcome, and of the immense value of the company's property. Shareholders who can do so are requested to call at the office, where these photographs may be seen. As regards the prospects of the mines, when once washing is commenced it is calculated that the profits will amount to close upon 40000 per month. The capital is 20,000.

GAS SHARES.—The principal business in these shares, according to this evening's report of Messrs. W. L. WEBB and Co., of the Stock Exchange and Finch-lane, has been—Bombay (Limited), 6½; Brentford (New Stock), 15½; British Gas Light (Limited), 43 to 43½; Buenos Ayres, New (Limited), 13 to 13½; ditto, 6 per cent. Debentures, 189½ to 190½; Commercial Consolidated, 255; Continental Union (Limited), Original, 38; ditto, 7 per cent. Preference, 31 to 31½; Gas Light and Coke, A, Ordinary, 220 to 224½; ditto C, D, and E, 10 per cent. Pref., 238 to 239½; ditto 4 per cent. Debenture Stock, 110 ¼; ditto 6 per cent. Debenture Stock, 163; Hong Kong and China (Limited) 17½; Imperial Continental, 203½ to 208½; Metropolitan of Melbourne, 5 per cent. Debentures, 190½, 102½ to 102¾; Monte Video (Limited), 17½; Oriental New, 187½, 11½ to 11¾; Para (Limited), 5; Rio de Janeiro (Limited), 22½ to 23½; South Metropolitan, A, 283 to 289½; ditto B, 221½ to 222; ditto Perpetual 5 per cent. Debenture Stock, 127. Gas stocks flat on selling.

INSURANCE SHARES have, according to this evening's report of Messrs. W. L. WEBB and Co., of the Stock Exchange and Finch-lane, been dealt in as follows:—Alliance British and Foreign, 37½ to 37¾; Clerical, Medical, and General Life, 50; Commercial Union, 16 to 16¼; Employers Liability Assurance Corporation, 1¾ to 1½; Fire Insurance Association (Limited), 1¼; London and Provincial Marine (Limited), 4 to 4¼; Marine (Limited), 27½; North British and Mercantile, 25½ to 26; Rock Life, 6½ to 7½; Royal Exchange 394 to 396. Insurances dull.

TRAMWAYS.—The closing prices of this evening, as quoted by Mr. W. M. ARBUTT, of Tokenhouse-yard, are given in tabular form in the last page of the Journal.

FIRTH COLLEGE, SHEFFIELD.—SHEFFIELD TECHNICAL SCHOOL.—On Tuesday the Council appointed Mr. W. H. Greenwood, F.C.S., M.I.M.E., gold medalist Science and Art Department for Metallurgy and Physics, to be professor of metallurgy and mechanical engineering. Mr. Greenwood is the author of a well-known manual of metallurgy in two volumes, and has recently published Steel and Iron. His practical experience has been extremely large and varied. He served six years apprenticeship at the Gorton Works. He was four years chemist and assistant manager to Sir Joseph Whitworth, with entire responsibility for the conduct of the Bessemer, the Siemens, and the crucible steel processes from 1875 to 1880; engineer to the Abouchoff Steelworks at St. Petersburg, and for the last two years has been engineer and assistant general manager to the Landore Siemens Steel Company. The Council also appointed as assistant professor of mechanical engineering Mr. Wm. Ripper, science master, &c., Sheffield Higher Central Schools, A.I.M.E., &c., who among other honours has just been awarded a gold medal for good teaching by the I. H. E. Commissioners. A portion of Mr. Ripper's early career was spent as a workman in practical engineering, and many of his present students hold responsible positions in connection with local industries. Mr. Ripper has also had the advantage of studying the systems adopted in many of the most important schools and colleges in France, Belgium, and Germany, as well as in this country.

MARK VALLEY.—At the meeting at Salisbury, on Wednesday (Mr. Bellingham in the chair), the accounts showed for the past three months—Mine costs, 12651 12s. 4d.; lords' dues, secretary's salary, directors' fees, &c., 947 1s. The ore sold realised 562½ 9s. 11d. There was a balance of 1367 7s. 6d. against the mine. A call of 1s. per share was made. The agents' report stated that the exploratory work was progressing favourably, and that all the machinery was working well. They were now in good working order, and would soon increase the output.

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MESSRS. WATSON BROTHERS, in referring to their public Circular in the Mining Journal, would also observe that they BUY and SELL SHARES at the net market prices of the day in all well-established and respectable Mining Companies; also, in English and Foreign Funds Railway Stocks, &c.

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125 Almada, 3s. 9d.	40 Frontino, 17s.	
30 Birdseye Creek, 12s. 6d.	25 Gorsead, 2s.	20 Panulillo, £3 8s. 9d.
40 Bratsberg, £14.	27 Great Holway, 100	100 Port Phillip, 2s.
75 Balkis, 3s. 3d.	75 Indian Con., 2s. 9d.	20 Prince of Wales, 8s. 3d.
100 Colombian Hyd., 10s.	100 Kapanga, 7s. 3d.	80 Potosi, 10s. 9d.
50 California Gold, 11s.	25 Leadhills, £1 8s. 9d.	10 Roman Gravels, £3 10s.
40 Callao Bis., 10s.	75 La Plata, 5s. 3d.	13 Richmond, £4.
100 Chile Gold, 2s. 6d.	50 Lisbon-Berlyn, 5s. 9d.	10 Schwab's Gully, £6 1s.
70 Chontales, 2s. 9d.	25 Marke Valley, 9s.	10 Tollina A, £2½.
45 Cartago, 10s. pd., 5s. 9	30 Montana, £1 6s. 3d.	10 Tollina B.
100 Denver Gold, 2s.	5 Mona, 10s.	15 U. Mexican, £3 13s. 9d.
25 Devon Friend, 3s.	25 Mysore Gold, £1 6s. 3d.	100 Victoria, 5s. 9d.
50 Don Pedro, 4s. 3d.	150 Nouveau Monde, 2s.	80 West Callao, 3s. 9d.
35 East Rose, 6s. 6d.	25 Organos Gold, 11s.	2 West Crebora, 7s.
20 Ecton, £1 18s. 9d.	25 Old Shepherds, 13s. 9d.	100 Wheal Coates, 2s. 3d.
	20 Orita, 22s. 6d.	

Buyer of 80 Nundydroog, 50 Home Mines Trust, and 40 Indian Glenrock. SHARES BOUGHT AND SOLD AT NET PRICES. PURCHASES FOR FORWARD DELIVERY AT SPECIAL PRICES ON RECEIPT OF DEPOSIT OF 20 PER CENT. BANKERS: ALLIANCE BANK (Limited).

LEAD ORES.				
Date.	Mines.	Tons.	Price per ton.	Purchasers.
Oct. 30—Roman Gravels	22½	£ 7 3 6	Walker, Parker, & Co.
— ditto			7 4 6	Adam Eytan and Son.
— ditto		22½	7 3 6	ditto
—Great Holway		17	8 17 6	Walker, Parker, & Co.

BLENDE.				
Date.	Mines.	Tons.	Price per ton.	Purchasers.
Oct. 22—	Frongoch	109	£ 3 1 6	Villiers Spelter Co.
28—	Cwmystwyth	49½	2 6 0	Dillwyn and Co.
—	ditto	40½	2 6 0	Pascoe Grenfell & Sons.

COPPER, TIN, AND LEAD.—Messrs. FRY, JAMES and Co., Oct. 30, write: Copper continues to be dealt in daily, but the demand is not enough to stay the gradually declining tendency of prices—the fall in value of Chilean g.o.b.'s since the 16th inst. is 15s. to 20s. per ton. Tin has within a fortnight experienced a sharp rally of about 5s. per ton, and again a decline of over 4s. per ton in prices of fine foreign, and the tone of the market to-day is rather unsettled without change.

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1st November, 1884.

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REVUE TECHNIQUE, COMMERCIALE, ET FINANCIERE.
sous la direction de Mr. l'Ingénieur P. DESGUIN. Paraît le 4 Juillet,
1884, et successivement les Vendeurs de chaque semaine. Il contiendra des
articles d'actualité sur l'agriculture, la navigation, les mines, la construction,
les machines, les chemins de fer, les canaux, les travaux publics, le droit indus-
triel et commercial, les inventions, et les perfectionnements, et principalement sur
l'Exposition Internationale d'Anvers, dont il publiera les plans, les dessins,
et documents de tous genres.

Abonnements annuels:—Belgique, 25 francs; pays voisins, 30 francs.
S'adresser à Mr. NICOLAS FASTER, Ingénieur-Administrateur.
Rue des Croisades 32, à Bruxelles.

THE FAIR OAK COLLIERY COMPANY (LIMITED). IN LIQUIDATION. FAIR OAK COLLIERY, CANNOCK CHASE, RUGELEY, STAFFORDSHIRE.

PRELIMINARY ANNOUNCEMENT OF AN IMPORTANT SALE OF HIGHLY
VALUABLE MACHINERY, COLLIERY PLANT AND STOCK, LOCOMO-
TIVE ENGINE, RAILWAY WAGONS, AND OTHER EFFECTS.

MESSERS. JOSEPH COCKSEY AND SON have received
instructions from the Liquidator of the company TO SELL, BY
AUCTION, on an early day, to be named in future advertisements, the WHOLE
of the
FIXED AND LOOSE PLANT AND STOCK

At the above Colliery, comprising:—
Horizontal high-pressure WINDING AND HAULING ENGINES; air com-
pressor and steam engine; a 30 feet Guibal ventilating fan and steam engine;
steam boilers and fittings; boiler feed engines; underground pumping and
hauling engines; lofty pit frames; winding and hauling ropes, with pulley
wheels and gearing; wrought iron pit cages; a large quantity of wrought iron
tramway rails; the rails and other materials in the colliery branch railway and
sidings; a six wheel locomotive engine, by Fox, Walker, and Co.; truck and
cart weighing machines; portable weighing machines; a capital coal screening
apparatus, with hoist; about 500 coal tubs; safety lamps; colliers' tools; smiths'
tools; timber, stores; wrought and cast iron pipes, wrought and cast iron
scrap; and a variety of other effects; also a number of railway wagens.

Catalogues are in course of preparation, and will shortly be ready for distribu-
tion; meantime information may be obtained of Messrs. R. MACKAY and
Co., 3, Lothbury, London, E.C., and Royal Exchange, Middlesbrough; the
Auctioneers, Paradise-street, West Bromwich; and at the Colliery.

WHEAL GEORGE MINE, BETTS-Y-COED.

MR. ROBERT JONES has been instructed to SELL, at the
Mine, on WEDNESDAY, November 5th, the WHOLE of the
MINING PLANT AND MACHINERY, comprising:—

An 8 horse vertical STEAM ENGINE; two graphite mills; a disintegrator;
an engine, wagens, &c., &c.
The Liquidator is prepared to treat for the sale of his interest in the lease of
the mining rights.

The machinery, &c., will first be offered in One Lot; but if no acceptable offer
be made will be sold in detail.
Further particulars can be had of W. H. PARNELL, F.C.A., 38, Basinghall-
street, E.C., Official Liquidator; of Captain KERRISON, Betts-y-Coed; or of
the Auctioneer, Llanrwst.

WEST MARY ANN MINE, MENHENIOT, CORNWALL.

MR. SPRY is instructed TO OFFER FOR SALE, at Webb's
Hotel, Liskeard, on WEDNESDAY, the 12th day of November, 1884, at
half-past Three o'clock in the afternoon, the ABOVE MINE as a going concern,
with all the

MACHINERY, PITWORK, AND MATERIALS THEREON.
The mine is situated in the parish of Menheniot, Cornwall, and adjoins the
once celebrated Mary Ann Mine, which yielded immense quantities of lead ore,
and from which upwards of £70,000 were paid in dividends.

The West Mary Ann sett is very extensive, and is held for a term of 21 years,
from 1st September, 1877, at 1-18th dues. A large lead lode traverses the sett,
and a shaft has been sunk on the course of the lode to the 55 ft. level, where it
has been opened on north and south for a short distance.

The south end presents a most promising appearance, and produces fine stones
of silver lead ore, indicating that if explored in depth very remunerative results
would follow.

The north end is being driven, but it is not sufficiently advanced to meet with
the ore ground seen in the level above.

The machinery on the mine comprises a 24 in. cylinder pumping and winding
engine of sufficient power for exploring to a considerable depth, with 7 in. pit-
work attached, and all necessary appliances for developing the property.

The mine is offered for sale, in consequence of the relinquishment of a large
number of shares by shareholders, who from various causes are unable to carry
on their interest; and as the lode is found in strata, so congenial for the produc-
tion of mineral, a rare opportunity is presented of acquiring a most promising
mining property at a very moderate cost.

To inspect, apply to the Purser, Mr. W. G. NETTLE, Dean-terrace, Liskeard,
and for further particulars to him, or to Mr. R. CAUNTER, Solicitor, Liskeard.

NOW PUBLISHING, PRICE 30s., THE THIRD EDITION OF

KELLY'S DIRECTORY OF THE MERCHANTS, MANUFACTURERS, AND SHIPPERS OF THE UNITED KINGDOM.

Being a Guide to the Export and Import Shipping, and Manufacturing
Industries of the United Kingdom, with the Colonies and Foreign Countries.

This work gives a vast amount of information respecting the business carried
on between the United Kingdom and the Colonies and foreign countries, showing
the description of goods and the amount thereof exported to each Colony or
country abroad, the British ports whence shipments are made, the merchants,
factors, and shippers at the various ports and towns in England, the manu-
facturers of the principal goods exported, and the merchants and others abroad who
are importers or buyers of British goods.

It also gives complete information as to the various descriptions of goods, and
the amounts thereof imported from abroad into this country, with the names
of the merchants and shippers, and also the manufacturers at the principal
towns of the various goods imported.

The work is divided into three principal divisions, the first of which comprises
the various foreign countries and British possessions throughout the world to
which British manufactures are exported.

Under each of these is given, first—a statistical account of the country; the
financial position; business relations with this country, with, in the case of
foreign states, the names of the British and other Consuls; the name of the
Minister in this country, Consuls, Vice-Consuls, &c., at the various ports and
places in this country; the principal bankers, the merchants, commission mer-
chants, buyers of English goods, and the manufacturers, &c., at the principal
towns of the various goods imported; the various ports in each country; also
the ports in this country whence shipments are made; tariffs, &c., &c.; a tabular
statement showing the exports from this country during the last three years; a
list of the merchants and shippers in the various British towns; list of steamers
and other vessels sailing from the ports; also a list of the various manufactures
that are exported from this country.

The second division comprises an alphabetical list of the exporters from this
country, stating the class of goods exported by them.

The third division of the work embraces the names and addresses of the actual
manufacturers, or manufacturers' agents, of the articles exported, describing as
clearly as possible the specialties of each manufacturer.

"It is almost exhaustive as a guide to the shipping and manufacturing in-
dustries, both export and import, of Great Britain and Ireland."—*The Times*,
Sept. 20th, 1884.

"Merchants and manufacturers of all kinds will find the Directory a valuable
guide, whether their interests are concerned in exports or imports."—*Daily*
Chronicle Sept. 12th, 1884.

"It abounds in information of the kind which merchants, manufacturers, and
exporters are constantly in need of. Its scope, however, is not confined to the
classes who in this country have business with the colonies and foreign parts;
but includes also the principal merchants abroad, so that the book becomes a
tolerably complete guide to the import and export industries of all countries
with which Great Britain has any mercantile relation, and vice versa."—*Daily*
News, Sept. 17th, 1884.

"In collecting the names of foreign and colonial firms—a task of considerable
difficulty, as will be understood—Messrs. Kelly have had the assistance of the
British Consuls, many of whom have given personal testimony to the important
service this Directory fulfils in commercial circles abroad."—*European Mail*,
Sept. 26th, 1884.

London: KELLY and Co., Publishing Office, 51, Great Queen-street, W.C.

M. F. S. HAMILTON (late Chief Commissioner of Mines for
the Province of Nova Scotia), PRACTICAL GEOLOGIST, MINING
AGENT, and MINING ENGINEER, HALIFAX, NOVA SCOTIA.
PURCHASER and SALES of MINING PROPERTY effected, with careful re-
gard to the interests of clients.

Notices to Correspondents.

COPPER-YIELDING MATRIX.—Will any one of your numerous readers kindly say,
through the medium of the Journal, whether or not he has known a permanent
and profitable copper mine in limestone, sandstone, or porphyry? Doubtless
copper has been found in such geological formations; but it is said so rarely,
and has proved to be so short lived, that the occurrence would seem to be
merely a freak of Nature rather than indicative of permanency and profit.
The question, then, is has a permanent and profitable copper mine been found
to exist in limestone, sandstone, or porphyry, and if so, where and when?—
IGNORANCE.

MAYA DE JADRAQUE GOLD.—Can any correspondent give me any information
about this company. Some months ago I wrote to the secretary, Mr. W. A.
White, at the office, 28, New Bridge-street. My letter was returned, with "not
known at 28" written on it.—G. L.

PLYMPTON MINING AND ARSENICAL COMPANY.—I was induced to take shares in
the above company in 1879, and it shortly afterwards was put into the hands
of a liquidator to be wound-up, from which time I have heard nothing more
about it. Can any of your numerous correspondents give me any information
as to what has been or is being done in the matter? Does not the law of
liquidation especially provide for a yearly report from the liquidator to the
shareholders and the creditors of an estate till it is finally wound-up?—
P. B.: Newcastle.

NEW SOUTH WALES SILVER MINES.—Being desirous of obtaining some informa-
tion as to the origin of a silver mine in Silverton, New South Wales, I enquire
through the *Mining Journal* as the most likely source for gaining such. In
Silverton there is a mine which is known by the name of the Mitchell Creek,
and I wish to ascertain from what source it derives its name? If it is from an
individual or individuals bearing the name Mitchell I would like very much to
find out their genealogy. I do not know any other source in the meantime
for getting a solution to the above.—W. M.: Glasgow.

FRENCH DATE COFFEE COMPANY.—Can any correspondent who is like myself
in the same position give me any information as to the progress being made
in winding up the French Date Coffee Company? I am unfortunately the
holder of 40 shares, and I remember when the company was put into liquida-
tion, sometime about February or March of last year, we were informed that
considerable assets were in hand in cash as well as the entire value of expensive
premises in Paris, and I am at a loss to understand how we have never heard
anything of these.—PSEUDONYM: Liverpool.

COST-BOOK LIABILITIES.—I would be glad if you could answer the following:—
Last May I bought some shares in a Cost-book mine, paying cash for them;
since then there have been two calls in this mine. Now I have received no
transfer nor communication of any kind, except contract note and receipt of
payment last May. Can you say how I stand, and whether I am liable for the
two calls that have been made.—C. M. D.: Manchester. (There can be no
question that if a dealer or other person sells a Cost-book share, and fails to
deliver it until after a call has been made, the seller must pay the call. The
buyer acquires no liability until the transfer has been registered, and in a Cost-
book concern a share cannot be transferred until all calls are paid. If the
dealer declines to deliver the shares, calls paid to date of delivery, put the
matter in the hands of your solicitor, and he will quickly recover.)

Received.—"R. N. W." (Plymouth): Thanks.—"H." (Amsterdam): Address for-
warded as desired.—"W." (Vronheulog): We have completed the table as you
wish, and publish it.—"H. D.": Inserted.—"F. L." (S. A. des Sondages du
P. de du R.):—"J. W. S." (Columbia): The copy sent has been torn; have you
another to spare?—"W.": Messrs. James Lewis and Son, of Liverpool, could
supply the argentiferous matte, regulus, or precipitate required.—"Occa-
sional": Next week.

THE MINING JOURNAL, Railway and Commercial Gazette.

LONDON, NOVEMBER 1, 1884.

THE NEW COLLIERY REGULATION.

The recklessness of the working collier is proverbial. Probably
this is due to a very great extent to the risky nature of his occupation.
Accustomed to danger from their very infancy, they appear
indifferent to the many subtle enemies which surround them on all
sides. Familiarity does indeed breed contempt, and it is by no means
an uncommon thing to find a collier strike a match in order to obtain
a light for his pipe, heedless of the fatal consequences which might,
and often does, ensue from such a rash act. Other salutary precau-
tions are alike disregarded, and the official record of so-called "accidents"
caused by the carelessness, or worse, the recklessness, of the
collier clearly proves that if the lamentable loss of life in mines is
to be prevented it must be by the adoption of rules and regulations
rendered absolutely necessary for safety, although their observance
may occasion inconvenience or a little pecuniary sacrifice on the part
of the miner. Experience has proved over and over again, and is
being every day repeated, that in the practical working of a mine,
more especially those of a fiery nature, the collier cannot be entrusted
with his own safety. No inspection by any number of officials, no
mere rules or regulations, can give immunity from catastrophes.
Rules may tend to check and lessen the consequences of explosions;
but to prevent them the means of mischief must be taken out of
reach altogether.

We have on several occasions entered our protest against any large
increase in the number of Government Colliery Inspectors, which
some zealous but indiscreet persons are seeking to bring about. We
believe it would tend to relieve the proprietor and manager from that
care and supervision which properly belong to them, and thus in-
crease explosions and other fatalities. At the same time, where there
is such reckless disregard on the part of the collier, stringent rules
are absolutely necessary. It is, therefore, with pleasure we regard
the new rule which the Home Secretary, Sir WILLIAM HARCOURT,
has just issued with regard to shot-firing as a step in the right direction.
The new rule proposes to prevent shot-firing in all collieries
unless the men are first removed out of the collieries, except those
actually engaged in firing such shots. Many competent authorities
would have gone further, and prohibited the use of powder and
shot-firing entirely in all collieries. Mechanical science has
placed at the disposal of the collier a fairly efficacious and abso-
lutely safe method of getting coal without the use of powder
or shot-firing. Why, then, should the dangerous process be con-
tinued? The Government Inspectors have repeatedly reported against
its use, and recommended its prohibition. It is one of the most pro-
lific sources of fatal casualties, and totals up an average loss of over
200 lives per annum—last year no less than 246 deaths being due
thereto! This is one of those "preventable" casualties in mines at
which it is the duty of the Government to strike at the very root,
and this can only be done by acting upon the recommendations of the
Inspectors, and prohibiting the use of shot-firing under any and
every circumstance.

And the new regulation is a good step forward. The working col-
lier, however, true to his proclivities, dislikes any change in the mode
of working, and already is up in arms against it. In the South Wales
district the men have already met in large numbers, and denounced in
no measured terms the new rule as oppressive and impracticable of
adoption, and have petitioned the Home Secretary against enforcing
its use. But was ever a new regulation, involving a complete change
in the system of work, ever recommended without the most violent
opposition? The introduction of steam itself—the employment of
machinery instead of manual labour—was to bring about the speedy
ruin of the country. The same principle applies to-day in the work-
ing of collieries. Let any manager try to introduce a new system
into any pit; and although it works admirably in other districts
under precisely parallel circumstances, it will in all probability meet
with the most violent and uncompromising opposition. With regard
to the new regulation of the Home Secretary it is vehemently op-
posed by the working collier, but this is based upon imperfect infor-
mation; they evidently have no practical experience of "the lime
process," and with true Tory pertinacity regard every advancing step
as an innovation dangerous of adoption, and, therefore, to be fought
against tooth and nail.

In so strongly protesting against the introduction of this new regu-
lation the managers and workmen should remember that the Home
Secretary is responsible to a great extent for the safe working of
mines. The saving of human life is his first consideration—to this
everything else is subservient. If it can be proved that an old estab-
lished plan involves serious risk to life, and that a new system is
equally efficacious and is absolutely free from danger, no sane man
would hesitate to abandon the former in favour of the latter. And
this is precisely the case of the Home Secretary. Last year 246 lives

were killed in the Pen-y-graig Colliery, South Wales, and the Govern-
ment Inspector and the coroner's jury had no hesitation in saying
this was entirely due to the firing of a shot. The old system is
therefore, eminently dangerous. On the other hand, almost every
Government Inspector has condemned the use of shot and powder
and they would not do so without due cause. In addition to this, ex-
periments with lime have been made in almost every variety of seam
under the practical inspection of a committee of miners, who unani-
mously pronounced in its favour. Not only so, some time ago the
Secretary of the Miners' National Union issued a circular urging the
general use of lime in preference to powder in all mines—so that the
miners themselves say that here is a perfectly safe and equally effi-
cacious agent. Why, then, should it not come into general use?
Until the collier becomes accustomed to the new system it may cause
a little inconvenience and possibly a little temporary loss in wages,
but life, as we have before remarked, is the first consideration. The
colliers are condemning a system of which they have had no practical
experience. On the other hand, we may rest assured the Home
Secretary has not issued his new regulation without due consideration
and a full knowledge of all the facts of the case. Shot-firing is in-
questionably dangerous under the most favourable circumstances.
It is condemned by the Government Inspectors of Mines; it was de-
nounced by a committee of miners, who specially investigated the
use of lime; and, lastly, the Miners' National Union protested against
shot-firing, and in favour of the use of lime. Under these circum-
stances the Home Secretary can scarcely resist such overwhelming
evidence, and if he does not entirely prohibit shot-firing in all mines
he must insist upon the new regulation having practical trial, assuredly
that it will materially conduce to the greater safety of the mines, and
remove another of those "preventable" catastrophes which cause so
great a yearly sacrifice of human life.

DISCOVERY OF THE FOUNDATIONS OF A ROMAN BRIDGE IN THE RIVER TRENT.

In the course of carrying out large dredging and other works for
the improvement of the Trent navigation, which connects Hull
Grimsby, and Goole by water with Birmingham and the Midlands
Canal System, a most interesting discovery has been made, and one
which seems likely to receive more than an ordinary share of atten-
tion from antiquarians and historians. On the passing of the Trent
Improvement Act last spring the Navigation Company commenced
operations in a reach of the river lying between the villages of Col-
lingham and Cromwell, north of Newark, near the former of these
is supposed to be the Roman station of Crocolana, and the latter
is given by CARLYLE as the nursery of the Cromwell family.

The works in progress include a large amount of dredging, the
quantity of material already removed from the river bed amounting
to some 50,000 yards, and it was during this operation that the work-
men came across what had been formerly mistaken by Trent boat-
men for a sunken barge or keel, but what proved on further pro-
bine and careful examination to be the pier of an old wooden bridge.
About 40 ft. or so closer to the north bank another of similar ap-
pearance was found, and it is presumed there are six or seven of these
piers forming the whole bridge.

A decision was come to by Mr. ROSE, Mining Institute C.E., En-
gineer in Chief, to blow up the two piers obstructing the navigable
channel with dynamite. This was done carefully and effectually
under the superintendence of Mr. WHELDON, Surveyor to the Com-
pany, and Mr. JOHNSON, of Tower-street, Dudley, acting for the
Explosives Company, of London.

As this record of old time lay in mid-channel, 4 or 5 ft. under
water, with a strong current running, it was fully expected that holes
would have to be drilled into the solid masonry, and the shots fired
by electricity from the shore. This being a very tedious and expen-
sive method, Mr. JOHNSON decided to try much easier but still more
risky means. The dynamite having been made up into waterproof
packages of 10 lbs. each, the operator, with surveyor and assistants,
started in a small boat guided by ropes from each side of the river
to the scene of action. On arriving immediately over the old foun-
dation, which was found to be diamond-shaped, a charge was lowered
on to the one end. All being ready the fuse was lighted, and the
boat drawn rapidly down the river out of harm's way. Inspection
proved that the "old chap" had been hit very hard. Another heavy
charge was then placed in the centre and exploded in a similar way,
bursting the whole structure, and throwing up an immense cone of
water, the falling spray from which was driven by the wind at least 200
yards away. Eight shots in all were fired, the last of which made a
clean job by blowing up the old oak centre baulk and cross pieces, the
whole lot floating down mid-channel like a huge whale. In three
hours eight charges judiciously disposed completely wrecked the re-
mains of a work which has withstood the action of weather and
water for 16 centuries and more, and over which many a hard con-
tested struggle has taken place, as shown by the numerous human
skulls and bones which have been dredged up. A portion of the
wood and stone work was, however, afterwards recovered, and ex-
aminations are to be made with a view of finding and preserving another
of the remaining piers.

From observations previous to blasting it appeared that the founda-
tions were formed of wood, set in Lancaster or somewhat similar
stone, the oak wallings and baulks were black and hard, but mostly
in good condition: the mortar was still quite hard and adhesive, the
wallings were tied across through a large centre baulk by tie-pieces
of wood, having octagonal heads, through which wedges had evi-
dently been driven to keep the structure together. There is room
for doubt whether any similar structure of wood now remains in such
complete preservation, although in Rome itself some traces of a
wooden bridge, supposed to be either the Pons Aemilius or the Pons
Sublicius have been seen in the Tiber, but they do not appear to have
been distinctly recognisable. From Ratue, or Leicester, the ancient
Fosse Road makes its way through Vernamatum and Margidunum,
thence by the Trent banks to Lindum, or Lincoln. Between Mar-
gidunum and Lindum two stations are given in the History of Anti-
quities, the sites of which have been a matter of some dispute among
the learned; of these two Crocolana seems to have taken up its po-
sition by general consent at Brough, near Collingham, and Adpontem,
the other, is generally placed at Farndon. At first it would appear
that the position had been solved by the discovery near Collingham,
but the distances given by Antoninus do not there correspond, and
the bridge now traced can only be fixed upon as adjacent to the
station Adpontem by the supposition that Crocolana and Adpontem
have been accidentally transposed in the Itinerary of Antonine. Local
historians have attempted to fix the position of Adpontem at Newark
and Southwell; there are really no proofs in existence which go to
show that Newark was a Roman station, but Southwell, if it was not
actually the Adpontem, bears evidence of having been held by the
Romans as an advanced post across the Trent in their northward
advance.

As the Romans were excellent engineers it is probable they were
not particular to a bridge or two across the Trehenta, the banks of
which, for commercial and other reasons, would at that time be very
populous, and the bridge now discovered was probably a connecting
link between the district of Lindum and Crocolana and the station
Ultra Trehentam (Adpontem, or some other), on the way north-
ward. It may be mentioned, in connection with these works for
the improvement of the River Trent, a matter which Staffordshire
manufacturers take great interest in, that there appears to be some
possibility of an agreement being come to between the Navigation
Company and the Corporation of Nottingham, who have hitherto
strongly and rather ill-advisedly opposed the proposals of the com-
pany.

The Corporation are to subsidise the company, and in return the
company are to commute the river tolls on sanitary cargoes, to give
the Corporation an *ex officio* representative on the directors, and
control of certain floodworks within their municipal boundary. Such
an agreement would no doubt save a most costly Parliamentary
struggle, and will be viewed with favour by many interests in the
Midlands, which are anxiously looking forward to improvement
in our system of inland navigation and water carriage.

WINTER TRADE PROSPECTS.

In last week's *Mining Journal* we inserted a few remarks with the object of counteracting, if possible, the gloomy and pessimistic apprehensions of many persons with respect to our staple trades over the approaching winter months. We deprecated these forebodings as calculated to produce the results which all profess desirous of avoiding. Sitting down with folded arms and bemoaning depression of trade is not the way to help forward the best commercial interests of the nation. Whilst regretting the tone which some persons adopt, we endeavoured to show that there were some substantial reasons why we should take a far more cheerful view, and that there were indications of an early trade revival which should give us a fair average trade over the pinch of the winter. We pointed out that in all probability our principal railway companies would become large purchasers for steel and iron rails, and that our colonies would shortly make important extensions of railways in their midst which must call for large demands for our rails. In confirmation of the accuracy of the views we then expressed, we now find that large orders for steel rails, the total amounting to over 60,000 tons, have just been given out. The India Office has bought 3000 tons, the North-Eastern Railway 20,000 tons, and the South-Western Railway 20,000 tons. The whole has been received and appropriated by the Rails Manufacturers' Association, and form a very good first indication of that better winter trade which we venture to predict, although this view may not be endorsed by some of those who profess to read the signs of the times. Another pleasing indication of the gradual revival of trade is found in the fact that the official statistical returns of pauperism, published this week, show that there has been a decrease in the number of paupers this year as compared with last year of no less than 2638, the total number of paupers throughout the whole country being 682,498. We regret to see that in the North of England iron district the operatives have already taken advantage of the slight improvement in trade, and have begun to agitate for an increase of wages to the extent of 2½ per cent. This is indeed most suicidal policy, and if persisted in will check the revival which all should endeavour to help forward by every means in their power.

GOLD EXTRACTION—DRY AMALGAMATION.

The question whether there is any class of auriferous ore so refractory that an appreciable percentage of gold remains in the refuse after the mineral has been submitted to the ordinary processes of treatment in use in the gold mining districts of America and Australia is one upon which some persons in England have doubts, although both colonists and Americans are fully satisfied that where any serious loss takes place it is justly attributable to the want of judgment on the part of the superintendent than to the absence of known processes adapted to treat the ore satisfactorily and remuneratively. Those who complain of the failure of existing processes to extract every particle of gold, and the difficulty of dealing with pyrites and arsenical auriferous ore, usually neglect important considerations. It by no means follows that the process which extracts the largest percentage of the gold contained is necessarily the most economic in a commercial sense, because it frequently happens that 90 per cent. of the contained gold in an ore holding \$10 in the ton can be extracted for \$3, whilst by using an improved process which enables 97½ per cent. of the contained gold to be extracted from the same ore the cost of treatment is raised to \$6 and the length of the process increased, so that by losing one-tenth of the produce we gain \$6 on each ton treated, whilst the improved and more perfect (?) process gives us 75 cents per ton more gold, but leaves us but \$3-75 profit on each ton of ore treated; and hence we sacrifice \$2-25 of profit, for the benefit of the inventor, upon every ton of ore treated. Yet on the face of these indisputable facts, inventors are in the habit, and the habit is unfortunately on the increase, of making the percentage of gold saved the sole test of the efficiency of a process. The practice may mislead feather-bed miners, whose practical and engineering experience is limited to the holding of shares, but it is never likely to deceive those who enter upon gold mining with a view to earn profits.

Practical gold miners are no doubt a very silly set of people, but they succeed in extracting gold at a good profit from ore which contains but 3 dwts. to the ton, and the inventors of home-made toy processes will have to do more than they have yet done if they wish to secure better results; it is hoped, however, that Mr. Rowland Jordan, of Gracechurch-street, has done something towards showing that the tailings of even 3 dwts. ore can be treated at a profit, more especially as there are millions of tons of tailings in all gold mining districts which can be had at a nominal royalty, and without any immediate cash payment. The readers of the *Mining Journal* are so well acquainted with the ordinary process of extracting gold from free milling ores, from sulphide ores, and from ores in which the gold is associated with other metals that they need not now be referred to, and are also familiar with the chlorination and other chemical processes, which are successfully working, so that it may be at once stated that Mr. Jordan's process, which is a mercurial one, is claimed to differ widely from that in general use, inasmuch as from first to last not a drop of water is employed, nor is the ore ground in a bath of mercury. There are, it is stated, four novel principles or conditions of treatment which combine to secure the extraction of the gold from the most refractory mineral combination without the application of fire, and at what appears to be a moderate working cost. In the first place, the ore is reduced, and the gold amalgamated while in a perfectly dry condition. In the second, it is reduced entirely by impact and not by abrasion, so that the particles are not rubbed or pounded together. A complete separation of the various constituent particles thus takes place, and their individuality is preserved, the ore being divided into a powder of extreme fineness. In the third place, the ore in this finely-divided, clean, and dry condition is subjected to the action of mercury under considerable pressure, and under the constant action of mechanism which continually separates the particles. The ore is thus retained under the mercury sufficiently long for each atom of gold to be seized by and absorbed into it. In the fourth place, the entire process is automatic from first to last, this automaticity being obtained by means of air currents, which are utilised for the separation, delivery, and conveyance of the powdered ore from one point to another, instead of sieves, water, and labour. The apparatus by which these results are obtained consists, firstly, of a crushing machine in which the ore is roughly broken and delivered into a receiving pit. From thence an elevator lifts it to a Jordan pulveriser, in which it is reduced to a very fine powder. In this machine there are eight flat surfaces of hard iron, four each on two spindles, revolving in opposite directions, and carried within a cast-iron casing. These opposing surfaces are so angled that the material fed into the casing is, by their action, continually struck from the path of one set of surfaces or beaters into the path of the set revolving in the reverse direction. In this way the particles are reduced to any degree of fineness simply by the force of these repeated blows. The whole of the wearing action is concentrated upon the beaters, which are adjustable, and can be readily replaced when worn out. During this continuous beating action a current of air is induced through the casing by means of vanes on the revolving arms, the force of which current can be regulated by valves to any required extent. The size of the particles delivered from the pulveriser is entirely controlled by the force of the current, as no particle can leave the machine until it is fine enough for their current to suspend it and carry it forward. The pulverised material is thus automatically conveyed to a settling or collecting chamber, from whence it passed by its own gravity to an apparatus which automatically regulates the feeding of the auriferous powder into the amalgamator. This portion of the apparatus contains a body of mercury from 30 to 50 in. in depth, according to requirement, and to the bottom of which the powdered ore is conducted. Being so much lighter than the mercury the ore rises through it to the surface as fast as the controlling mechanism will permit, having yielded up the gold in its upward passage. The refuse sand, on reaching the top of the mercury, encounters another air current, which conveys it either to the waste pits or, if necessary, to another machine for the separation of any sickened mercury which, in the case of arsenical sulphides and some other complex combinations, may be carried away

by the amalgamating air blast. This last machine effectually separates and detains the last particle of mercury, thus obviating the waste of this valuable metal, the escape of which forms such a serious source of loss in many gold mines.

The simplicity and efficiency of the process may safely be left to the judgment of those accustomed to the extraction of gold from its ores, but it is stated that a mill on the Jordan principle recently erected at Stratford Market, capable of doing 50 tons of ore per week is driven by a 10-horse horizontal engine. In a test trial some Queensland ore tailings—that is the refuse ore after amalgamation—were put through the mill, and the automatic action and simple character of the whole plant were clearly demonstrated. With regard to the superiority of the Jordan system over those in ordinary use, it is stated that some Queensland ore containing 4 oz. 18 dwts. of gold per ton was put through the apparatus, with the result that only 4 dwts. 20 grs. of gold were left in the tailings, showing that 96 per cent. of the gold had been taken out. In another case some concentrated tailings from an ordinary stamp-mill containing 4 ozs. 9 dwts. of gold per ton were put through the Jordan apparatus, analysis showing that only 8 dwts. 1 gr. per ton were left in, being equal to an extraction of 93 per cent. Californian ore, containing only 1 oz. 18 dwts. 2 grs. per ton, was also put through, the result being that only a trace of gold was found in the tailings. Some of the tailings from the same mine from which this ore came, containing only 8 dwts. 18 grs. of gold per ton, were also tried with a similar result, a mere trace of gold being found in the tailings. Mr. W. Crookes, F.R.S., in a report upon the process, declares that it will extract gold from refractory pyrites with greater facility than the ordinary process will treat free milling ore, and if this opinion be supported by the results of actual practice the inventor will be well entitled to the warmest congratulations.

BRITISH COMMERCIAL GEOGRAPHICAL SOCIETY.—The formation of this society appears to be making satisfactory progress. On Monday, by appointment of the Lord Mayor, a meeting in its support was held at the Mansion House, Dr. HYDE CLARKE occupying the chair. The Chairman, after referring to the favourable reception of the project by leading firms in the City, said that there was every reason to believe that as its vitality and vigour developed the institution would receive the support from the merchants of the country which its promoters desired. The interest awakened in the subject by a meeting over which the Lord Mayor presided when this society was founded, in July last, had already borne fruit in the formation of two similar societies, one in Edinburgh and the other at Manchester. It was to be hoped that commercial geographical societies would be formed in every important town in the kingdom such as now existed in Germany and in France. The prospective pecuniary advantages of the society having been referred to by Commander Cameron, it was resolved—"That the function of commercial geography as distinguished from purely scientific geography being to search out and disseminate special information regarding the productions, requirements, and physical conditions of various localities and countries with a view to the extension of British trade, it is the opinion of this meeting that the British Commercial Geographical Society, founded at the Mansion House on July 15 last, is calculated to be of eminent service to the commercial and industrial interests of this country, and well deserves the support of the mercantile community of London and the provinces." This was seconded by Mr. Manley Hopkins, Consul-General of Hawaii, and supported by Mr. Fong Yee, a Chinese Secretary of Legation, who avowed his belief that foreigners should not regard the formation of this society with jealousy, since its operations, by the extension of trade and the promotion of intercourse, must conduce to the benefit of the whole world. As with the members of the body, so if one nation suffered all other nations suffered, directly or indirectly. Mr. Sonada Kokochi, Consul-General for Japan, and others having spoken, it was also resolved "that it is in the highest degree expedient that a better knowledge of the commercial geography and resources of our Indian and Colonial Empire should be disseminated among all classes, and that the British Commercial Geographical Society will be a most valuable institution for the purpose of promoting this important object."

MINING PROGRESS IN THE TRANSVAAL.—Under the head of Nuggeteer's Tailings, Mr. D. Gordon Cameron, in his *Transvaal Mining Gazette*, says:—"I hear that the Government is going to re-open the Barret-Berlyn case. The Lisbon-Berlyn Company is going ahead. Friend Grant wants dividends, so his company is buying up claims on Dempster's Reef through Mr. Erskine's agency. If the Sanitary Committee had fewer rules and more action, the camp would benefit more by it probably. We notice that Mr. Cooper has started a forge at the Umsindine for the benefit of his West End Pioneer and Dempster's Reef customers, thus saving them the great inconvenience of coming so far into camp. The attempt to float a company in Kokstad for the purchase of Mr. Erskine's ground has turned out a failure. Mr. Savory, of Messrs. Raw and Co., killed a black mamba on Sunday last, in Pumpka Creek, measuring fully 10 ft. in length. Mr. Wyld has obtained a concession in the Crocodile district from Umbandine, the Swazi king, and intends prospecting it shortly. What is the matter at the Kantoor Post-office? Dozens of newspapers, known to be due here, have never arrived, and are not likely to either. There are rumours afloat that the Barbers have sold out their interest in their reef to a Pretoria syndicate for 30,000*l*. The inspectors sent down by Government to re-inspect the boundaries of Moodie's farm, Oerschoot, have agreed, at the Kantoor, that the correct line of the farm runs along the top of the high ridge of mountains south of the Pioneer Reef, and that the diggers here are accordingly working on Government ground. Last week one of our brother diggers went out prospecting for reef leaders with a donkey. The only leader found was discovered by his donkey. "Long expected, come at last!" is the exclamation of most of us upon hearing the news yesterday's mail that the rule of interdict, which has been undecided since June 6, has at last been made absolute by the High Court. Whether the rule *nisi* will affect us particularly, either one way or another, is still a question of the future, there being more battles yet to be fought before either the syndicate can obtain possession of their full rights, or the diggers here be enabled to work their ground with real security. It is evident that matters are now approaching a head, and the sooner that time comes the better will it be for the community in general, and for the Natal Syndicate in particular. We have had enough, and more than enough, of legal disputes and their consequent effects, and no man upon this field can go ahead and prosper until all disputes are settled, and certainty instead of uncertainty reigns in our midst. The case of Moulton v. Christian is again adjourned. When it is reopened we trust that the committee will recognise two facts—that Mr. Dales has been pretty well punished for his defiance of their authority, and that the question of his getting back his interest in Kestell's claim is another and a different point entirely. Mr. Dales bought an interest in the claim for 1000*l*.; but it can hardly be alleged that responsibility for Mr. Kestell's shortcomings were included in that purchase. We trust that the committee will consider the case entirely upon its merits.

COBALT EXTRACTION.—According to the process patented by Messrs. HERRENSCHMIDT and CONSTABLE, of Sydney, the ore is crushed and the percentage of oxides of cobalt ascertained, then sufficient sulphate of iron is added to convert the oxides into sulphates, and water added till it is the consistency of thick slime. Then it is boiled for an hour, when the whole of the oxides will have been converted into sulphates and held in solution by the liquor. The thick residue is then washed, so as to remove every trace of sulphates, which may then be treated with any of the well-known materials for re-converting sulphates into oxides. Instead of the boiling process the dry crushed ore may be mixed with the sulphate of iron in the shape of salt, and heated in a furnace until the sulphate of iron has been converted into an oxide of iron, and the oxides of cobalt into sulphates.

GORSIEDD AND MERLLYN.—On the petition of creditors and shareholders the Chancery Division of the High Court of Justice on Oct. 25, made the usual compulsory order for winding-up.

REPORT FROM CORNWALL.

Oct. 30.—Not merely the unsettled state of the tin market, but the really illegitimate character of that unsettlement, are shown by the fluctuations which have taken place since our last. So far as the general conditions of supply and demand are concerned, there was no reason whatever why the recovery of 3s. should be succeeded off-hand by a second fall of 2s. Nor can any one be hardy enough to contend, with any show of reason, that in the interim there had been the slightest depreciation of value in our leading mines. Indeed, the tendency is quite the other way, and that not only at Carn Brea, where such an important discovery has just been announced. It should be one of the most important elements in coming to a conclusion touching the present position of affairs that Cornwall, in capability of productiveness, is clearly gaining ground, whilst its exterior rivals, in the Straits as elsewhere, are as clearly falling off. But considerations like these seem to have very little influence on the present, though, of course, they must have an influence upon the future.

The discharge of miners at various mines continues, and has spread into Devon. The only mining district in the latter county now left—the few other mines are merely as it were dotted about—is that of Tavistock, the mainstay of which is Devon Great Consols. The discharge of 50 miners from this mine, coupled as it necessarily has been with a reduction in wages, is a very serious thing, not only for the miners themselves, but for all who are interested in the business of the locality. Tavistock and Gunnislake are in fact more largely dependent upon mining than upon any other industry, and a falling-off here not only means of necessity great distress, but may if continued lead up in some instances to absolute ruin. An improvement here cannot be too anxiously anticipated, nor can it come too soon. Of course if mines are to be kept going at all at such a juncture it can only be by the exercise of the very strictest economy in the matter of labour as of everything else. The one bright spot in connection with this particular phase of the situation is that this appears to be recognised all round. We much regret that the forecast we made some weeks since of the prospects of a hard winter for the mining population are likely so fully to be realised. It seems hopeless after what has just taken place to expect any sustained improvement this side of Christmas.

The Mining Institute of Cornwall has held a triply important meeting. It has decided on the amalgamation with the Miners' Association on the terms stated last week, and that almost unanimously. It has resolved to protest against the absurd and tyrannical requirement for the watching of dynamite stores, and it has set before it a full statement of the extraordinary performance of Mr. Husband's stamps at Owen Vean and Tregurtha—performances so important that it was acknowledged at the meeting that the whole question of the stamping arrangements of the county will have to be forthwith reconsidered. The facts as set forth in Mr. Loam's paper read at the last meeting of the Miners' Association were really conclusive enough, but the fuller and later statement of experience by Captain Derry renders it absolutely necessary that all who are interested in tin mining should look into this matter for themselves. The results achieved are simply marvellous, as will be seen from a perusal of the report, and this is the chief direction now to which we have to look for economy.

TRADE OF THE TYNE AND WEAR.

Oct. 30.—There is a good demand for best steam coal, and the colliers on the north side of the Tyne will be well employed for some time to come, unless the rough weather in the North Sea should retard the progress of vessels, which is very likely. The new company which was formed some time ago to work the old Walker Colliery, on the north bank of the Tyne, have developed the workings considerably, the output being largely increased under the management of Mr. Hickels, formerly of Castle Eden Colliery, South Durham. The demand for gas coal is now very strong, consequently the works producing this coal in Durham are fully employed. The demand for house coal and coke continues only moderate, as does also that for manufacturing coal. The shipment of nut coal from the Wear to Germany has lately been on a large scale. During the past month 40,000 tons have been shipped to that country, where they are largely used in the iron and other manufactures. The total shipments of coal and coke at Tyne Dock for the week have been 119,670 tons, which is about the largest week's work ever accomplished there, and 13,945 tons more than in the corresponding week of last year. The general exports and imports at this dock have also been heavy.

The projected formation of the Engineers' and Shipbuilders Association, which if carried out and successful may prove of importance in this district, has already been noticed in the *Journal*, and it is thought that there is a field quite large enough for the occupation of the new society without encroaching on that occupied by the older Institution—the North of England Institution of Mining and Mechanical Engineers. When the old Institution was formed in 1852 it was called simply the Northern Institute of Mining Engineers, the objects aimed at being the reading of papers on all matters connected with mining operations, and discussions thereon, and one special object of the society was, if possible, to prevent explosions in mines, which were at that time so frequent. Mr. Nicholas Wood was the first President, and he laboured long and successfully to promote these objects.

A number of the most eminent mining and mechanical engineers in this district seconded his efforts, and the volumes of Transactions contained valuable practical papers on all subjects connected with coal and other mines, and the labours of these gentlemen produced excellent results, and had a direct tendency to increase the safety of the miners, and to introduce improved modes of working the mines. Of late years the scope of the Society has been greatly extended, its title and objects changed, and it is now known as the Northern Institution of Mining and Mechanical Engineers, and the Society has certainly prospered greatly. There are now 800 members, and financially the Institute has been successful. It has, however, been considered by some that in extending the ground occupied by the Institution a great variety of subjects have been introduced which scarcely bear directly on the working of mines and the machinery connected therewith. At all events, it is now evident that the iron shipbuilding trade, the marine engineering, and some other trades on the Tyne, Wear, and Tees have reached such large dimensions that there is an ample field for the new society of Engineers and Shipbuilders, which it is now proposed—[though this would probably be at once stopped by injunction—Ed. M.J.]—to call "The North of England Institution." Mr. W. Boyd, of Wallsend Shipbuilding Works, occupied the chair on this occasion, and he advised that the adoption of a constitution and the election of officers should be left over for a fortnight, assuring those present at the meeting that he had no doubt that the employers in those trades would heartily support the movement. He also advised that invitations should be sent to members of those professions on the Wear and Tees to join them before any further important steps were taken. It was ultimately agreed that the suggestion of Mr. Boyd should be adopted, and the following gentlemen were appointed as a committee:—Mr. W. Boyd, Mr. W. H. White, Mr. H. F. Swan, Mr. A. Taylor, Mr. F. C. Marshall, Mr. John Price, and also some gentlemen on the Wear who should be found willing to co-operate with them.

On the whole, the Iron Trade has been quiet this week. Shipments, however, continue good, and, therefore, stocks will not increase at present, and as the price of pig-iron is open, through the collapse of the masters' combination, there is a more healthy state of affairs. In a vast industry like the iron trade a restriction of make on the one hand and a fixed sale price on the other cannot be carried out. There are some signs of improved trade generally. The demand for steel is encouraging, and work seems to be more plentiful in the district. The starting of the steelworks of Messrs. Bolckow and Vaughan is indicative of enlarged trade, and the same firm are doing a good deal in steel in various branches as well as ship-plates. The manufacture of cheap metal girders has been started by Messrs. Dorman, Long, and Co., of the Britannia Ironworks, in the Tees, and they are doing a good deal of business in this new branch. Even at present low prices buyers continue to be very cautious, especially for forward delivery, but this may be changed at any moment. Of course there is a fear of restricted trade in the winter, which is now near us. The manufacturing iron

trade continues very quiet. Orders have been got for a few more ships on those rivers and also on the Tees, mostly for sailing vessels. The building of cargo-carrying steamers has almost ceased. The prices of manufactured iron are—Bars, 5l. 2s. 6d.; angles, 4l. 15s.; ship-plates, 5l. The rates of pig-iron are unchanged; No. 3, 36s. 6d.; 21,790 tons of pig-iron were shipped from the Tees last week. Messrs. Connal's stocks are 53,569 tons, a decrease of 69 tons on the week. In the coal and coke trade there is no change at Middlesbrough. The large orders given out recently for steel rails will assist the iron trade of the district, and, of course, more manufacturing coal and coke will be required.

REPORT FROM DERBYSHIRE AND YORKSHIRE.

Oct. 30.—Lead mining in North Derbyshire was scarcely ever in a worse state than it is at the present time, nor was the number of miners employed less. In the Eyam district in particular scarcely anything is being done as regards the raising of lead ore, and two mines at least have recently been stopped altogether. There are still a few companies left, but none of them are in anything like a flourishing state, and were it not for the mines held by a private gentleman or firm there would be very little ore raised in the county. One of these mines, indeed, appears to raise as much ore as all the others put together, and this has been the case for a considerable time past.

The Coal Trade has improved a good deal since the commencement of the month, but this, it may be said, is principally confined to house and gas qualities. A large tonnage of the former continues to be forwarded to the Metropolis from Clay Cross, Blackwell, Eokington, Langley Mill, Staveley, and other leading collieries, but scarcely to the extent of the men being fully employed. In fact, it would seem that of late more coal has been sent to the Metropolis than was required by merchants and large dealers, and these no doubt are now well stocked. The consequence is that whilst the prices to consumers in London have gone up fully 1s. per ton no such advance has taken place at the pits, nor can such be expected so long as coal is so plentiful, and hundreds of loaded wagons remaining at sidings and depots unsold. The recently issued price lists show that the colliery owners have increased their prices on paper; but it is only in some instances that they are able to enforce them *de facto*. Gas coal has continued to go away in larger quantities, but as has been before pointed out this is simply the result of the contracts entered into in July, when the monthly supplies are regulated, so that mineowners are in no way benefited by the increased business, but rather the reverse, seeing that it would pay them much better were larger quantities taken during some of the summer months. In steam coal no material change has taken place, the business doing in it being still somewhat moderate, the ironworks and railway companies being still the best customers, for but little of it finds its way to any of our seaports for exportation.

Considering the general condition of the Iron Trade that of Derbyshire may be said to be in a tolerably healthy state. With a full average output a steady demand has prevailed for pig for both Staffordshire and Lancashire, whilst as yet no decline has taken place in the home requirements, which have been considerable for several months past. A large tonnage has been required at the leading foundries, more especially for gas and water pipes, for which several of the works have a high reputation. In other kinds of heavy castings also business has kept up well, but in the lighter kinds of work trade has only been moderate. Malleable castings have gone off tolerably well, and there are now good signs of increased activity at the rolling-mills in connection with some kinds of railway material.

In Sheffield orders for some of the old and light staples have come more freely to hand, and increased employment at the leading works has resulted. Still, in some of the heavier branches quietness is the rule, with less hands going. Bessemer steel, in billets and ingots, has continued in fair request, some special qualities being turned out for cutlery and general hardware, whilst there is a good deal being used for railway forgings, and a little more is doing in rails. In crucible steel the production has been of an average character, the demand for some of the finer qualities having improved, especially for light work. The business doing in table and other cutlery is now better than for some time past, most being done in the better qualities, despite the high prices of ivory, pearl, and other kinds of the best hftngs. The American and continental houses are not taking so much from us, so that the improvement principally applies to our own and the colonial markets. Edge-tools are in moderate request, but there is not so much doing in the heavier kinds. Files, too, are not so much enquired for, the distress in the North of England, in particular, having, no doubt, some effect on this branch of trade. The mills, taken altogether, are not running so well, and this is more especially the case as regards ordinary ship-plates, seeing that so little is being done at the ship-yards on the Tyne and Wear, and the quietness which also prevails on the Clyde. Armour-plates are, of course, an exception, for there appears to be plenty doing in them at the two establishments which enjoy the monopoly of this production. Bar-iron has been in a steady demand, whilst a good business has prevailed for hoops for exportation. The foundries are not so busy as they were, a falling-off having taken place in pipes, ranges, and some other specialities which sell mostly in the summer months. Engineers and mechanics have been kept but moderately going as a rule; but the railway-wagon builders have continued to do well in both new work and repairs. Steel wheels for railway and mining purposes have also kept the leading makers fairly good.

The Coal Trade of South Yorkshire has continued to improve, and, considering the season, a good business has been done in steam qualities for exportation for both Hull and Grimsby.

REPORT FROM LANCASHIRE.

Oct. 30.—For the time of the year there is a decidedly quiet tone in the Coal Trade of this district, and although quoted rates are maintained, there is to some extent a want of firmness in prices, and any further advance in list rates which might have been contemplated is for the present altogether checked. The chief cause of the weakness just now being shown by the market has, of course been the exceptional mildness of the season during the past month, which has considerably restricted the demand for better classes of round coal, but the continued depression in some of the large coal-using branches of industry has also contributed in the same direction by curtailing the requirements for ironmaking and steam purposes. For the better classes of round coal the quoted prices at the pit mouth remain at 9s. 6d. for best Wigan Arley, 7s. 6d. to 8s. for second qualities and Pemberton Four-feet, and 6s. 6d. for common house coal. So far as small quantities are concerned, these figures generally have to be paid; but where buyers are prepared to take quantities promptly, they are in many cases able to place orders at fully 6d. under the above rates. Common round coal for steam and forge purposes, except that they are in fair demand for shipment, still move off only slowly, and low prices are taken, 5s. 6d. to 6s. being about the average figure at the pit mouth. In engine classes of fuel the better qualities of slack are moving off rather better than they were, but generally the demand is only poor. Burgly fetches about 4s. 6d. to 5s., good slack about 4s., and common sorts 2s. 9d. to 3s. 3d. per ton.

Shipping continues fairly good, and in some cases a tolerably brisk trade has been done during the past week, at about 7s. 6d. per ton for steam coal delivered at the High Level, Liverpool, or the Garston Docks.

In the Iron Trade there is still only a slow business doing. Consumers seem to have very little to cover for present requirements, and the prospects for the future are extremely poor. Prices are not actually any worse, but the general tone throughout the market is weak, and for good offers makers in some cases would be disposed to give way a little rather than miss orders; but so far as pig-iron is concerned there is very little enquiry in the market to really test prices. For delivery equal to Manchester, local brands of pig-iron are quoted at 41s. to 42s.; Lincolnshire, 41s. 6d. to 42s. 6d.; and Derbyshire, 42s. 6d. to 43s. 6d., less 2½. Moderate sales of Middles-

borough foundry for foreign delivery are reported at 43s. 10d. to 44s. 4d. net cash, equal to Manchester. The recent upward movement in Scotch warrants has had no very material effect upon the price at which makers' iron can be got here.

Hematites continue bad to sell, and prices are very irregular according to brand; extremely low figures are taken in some cases, but the average prices for good qualities of foundry delivered here are about 52s. 6d. to 53s. 6d., less 2½ per cent.

Finished ironmakers are being kept tolerably well employed with a hand-to-mouth sort of trade, and they are generally firm at about 5l. 12s. 6d. for good qualities of bars, 6l. 2s. 6d. for hoops, and 7l. 2s. 6d. to 7l. 5s. for sheets, delivered into this district. Merchants, however, are competing keenly, and in some cases underselling the makers.

There is no material change to report in the condition of the engineering trades; in most branches there is a continued falling off in the weight of new work coming forward, and where firms are kept busy it is chiefly in foreign orders.

REPORT FROM NORTH AND SOUTH STAFFORDSHIRE.

Oct. 30.—The demand for coal, particularly for ironworks and manufacturing purposes, has not increased upon the week, and as supplies are very abundant, prices favour consumers. Very fair consignments of foreign coal, contracted for during the recent strike, are coming into the district to the order of ironmasters, and until these are worked off the demand at the Black Country pits proper will continue restricted. The raw iron trade is tame, and to effect sales vendors have to accept lower rates than those recently ruling. Leicestershire pigs are 42s. 6d. delivered, and Northampton 41s. down to 40s. delivered at stations. Hematites are 55s., and native part-mines 45s. By the blowing in of another furnace at Bilston the number now in blast is 32. In the manufactured iron trade, sheets are almost the only branch in which enquiries are still arriving with vigour. Nevertheless, the other firms are pretty well to do on contracts booked some little while ago. Prices are unaltered.

There is not much probability that the Strike Committee will succeed in their endeavours to get the colliers to come out again on strike. The fact is that the men are disunited, and they prefer to act upon the principle of "letting sleeping dogs lie," rather than take a course which is bound to end in defeat. This cautionary movement, however, appears to be lost upon their leaders. These have held a meeting at Tipton, and have expressed their opinion that all who have given notice for the advance, and all who have received notice for a reduction, should cease work after those notices expire. Also that those who have not given notice for the advance should do so. Judged by the returns relating to Lord Dudley's pits the number who have is scant. Moreover, those who work at No. 25, Willows Colliery, have only given the notice on the condition that it should take effect if the other pits' companies followed suit. The resolution of the Central Committee will, therefore, be a nullity. The accounts kept by the men's secretary during the recent strike have now been audited. They showed that the total amount raised was 6990l. 6s. 10d., and that there has been an expenditure of 6961l. 16s. 1d. leaving a balance in hand of 28l. 10s. 9d. It is reported also that large numbers of men are joining the new Midland Association of Miners.

The ironworkers have this week instructed their representatives on the Wages Board to ask the masters to defer their contemplated claim for a reduction of 3d. per ton in wages until Dec. 1. At a meeting at Westbromwich, at which this decision was come to, Mr. Capper justly pointed out that arbitration could not be blamed for the falls in wages which had occurred during the past 10 or 11 years. Trade had become depressed, and prices had fallen, consequently wages must follow suit. Now that Dr. Spence Watson has notified that he will not give his decision upon the Northern masters' claim for a reduction until December, there does not appear any likelihood that the request will be refused, especially as wages in Staffordshire hinge upon the rate paid in Cleveland.

At a meeting of the shareholders of John Bagnall and Sons (Limited), on Tuesday, in Birmingham, it was resolved, with only three dissentients, to approve of the scheme of the liquidator sketched last week, for the reconstruction of the company, but the consent of the Court will have to be obtained.

IRONWORKERS' WAGES.—To-day (Thursday) the South Staffordshire ironmasters signed an agreement with their operatives, promising to defer their claim for a reduction in wages until Dec. 1 next. This decision has been come to owing to Dr. Watson having notified that he will give his decision relative to the Northern ironworkers' wages during that month. Staffordshire puddlers' wages will, therefore, remain at 7s. 3d. per ton for the present.

REPORT FROM NORTH WALES, SALOP, AND CARDIGAN.

Oct. 30.—The future of the Shropshire lead mines depends very largely upon the action of the landowners with respect to royalties. With these in their present form there is little or no hope that the mines will continue to be worked. With a considerable reduction of these, and with a slight increase in the price of lead, the best mines may still have a chance. It rests with the owners whether they will have a loaf half the size of that they have been accustomed to, or no bread. In their present temper I fear they prefer the latter.

The dangerous condition of old mine shafts requires immediate attention. On Monday last a rockman named John Roberts fell down one on Llanymynech Hill, and remained there for a long time, until his cries brought help, when he was rescued badly bruised. On Halkyn Mountain, in Flintshire, these old shafts are very numerous, and are in dangerous proximity to public roads.

The Coal and Iron Trades are, as far as work is concerned, prosperous. The slate trade shows a steady improvement. On the new waterworks in the Vyrnwy Valley, for the City of Liverpool, the sum of 1,081,700l. 19s. 7d. has been expended up to the present time.

A new work on the Geology of Shropshire is in preparation by the Rev. J. D. La Touche, and will be published shortly. Mr. La Touche is a gentleman well known in Shropshire for his geological and other attainments.

TRADE IN SOUTH WALES.

Oct. 30.—The Steam Coal Trade of South Wales during the past week was not so buoyant as it has been, but the lull is only temporary, and merchants have no real cause for complaint. Good steam coal maintains its price of from 10s. to 11s. per ton, colliery screened, while house coal is quoted at from 8s. 9d. to 9s. 9d. The amount shipped from Cardiff was 108,042 tons foreign, and about 20,000 coastwise, with 3476 tons patent fuel; Newport, 35,859 tons foreign, and 24,059 coastwise; Swansea, 15,827 tons foreign, and about 13,000 coastwise, with 2635 tons patent fuel.

The Glynog Pit, near Llantrissant, is about to be re-opened. The engineers commenced operations on Wednesday. At the Garth Colliery operations are proceeding satisfactorily. Fresh collieries are to be opened at Dowlais, and Messrs. Crawshaw are about to sink a pit near the Aberdare Junction.

There is great dissatisfaction with the Home Secretary's views as regards blasting operations, and strong representations will be made to him on the subject.

As regards the Iron Trade it is stated that Dowlais is preparing for a period of unusual activity, while Cyfarthfa is about to stop for want of orders. The amount of iron sent away last week from Cardiff was 1390 tons, while Newport shipped 1665 tons. The arrivals of iron ore are large. Newport received last week 10,420 tons from Bilbao, and 6750 from other sources; Cardiff landed 10,606 tons from Bilbao.

The price of Tin-Plates is still downward, but manufacturers will not sell under 14s. 9d. per box, while buyers think that they will yet fall lower. "Wasters" are sold as low as 12s.

INDUSTRIAL PROGRESS IN NEW SOUTH WALES.—The Colonial Census Reports for 1881 show a large increase in the numbers engaged in almost every department of productive industry, especially skilled artisans, the increase in several instances exceeding 100 per cent.

WATSON BROTHERS MINING CIRCULAR.

WATSON BROTHERS,
MINEOWNERS, STOCK AND SHARE DEALERS, &c.
1, ST MICHAEL'S ALLEY CORNHILL, LONDON.

In our Circular of Oct. 18 we called attention to an action which, in our opinion, illustrated a very important point in connection with the Coal-book System of conducting mines. Until we read an account of the affair in the newspapers the writer was not aware that such an action had been brought, and in our remarks upon it we studiously, as we thought, avoided anything personal, or what might be considered as personally offensive. Under the head of "Amateur Legislation," in last week's *Mining Journal*, the solicitor to the defendant in the action referred to not only states that our remarks were calculated to mislead, but on one occasion the Master "dismissed an application" on part of the plaintiff, "with costs in favour of his client."

We have, in consequence of this letter, referred our remarks to the solicitor for the plaintiff, and he informs us they were strictly correct. We are further informed that every consideration possible had been shown to the defendant as a shareholder in West Crebor, and accepted before legal proceedings were commenced in accordance with a resolution of a general meeting of shareholders.

At Langford the lode in the 30 west is yielding 4 tons per fathom of mixed ores. The prospects here are very encouraging.

The lode in the 102 west at Prince of Wales is not looking so well, but is still a fine lode, and likely again to reach its old value.

The prospects at New Caradon, judging from the agent's report to the meeting, are very favourable. One of the well-known South Caradon lodes has been cut 3½ to 4 ft. wide, and saving work for copper ore, and he confidently recommends the sinking of the shaft and cutting this lode 10 fms. deeper, where a good discovery may be made, and reward the shareholders. The mine is one of the best speculations in the district, and in ordinary times shares would have been at a high price. In the present depressed state of the market there seems to be a difficulty in getting in calls.

South Penstruthal has been specially inspected for the shareholders by Capt. Hodge, of Wheal Grenville; and after an exhaustive report he gives good encouragement to the shareholders, who have been dreadfully disappointed so far. The mine is well equipped with all necessary machinery. Walton's shaft has been sunk 126 fathoms. Flat-rod shaft, 60 fathoms off, is 170 fathoms deep, and the lode, particularly at Walton's, shows a marked improvement in depth, and is in some places 30 feet wide. The chances are therefore considered very favourable for meeting with something good. The vein, as Capt. Hodge says, is from 1 to 30 ft. wide, and "if ore is struck it will be in large quantities; and although the mine is poor to-day, it may turn rich at any time, as the chances are very good indeed." In Mr. Watson's "Compendium of British Mining," published in 1843, Penstruthal, of which South Penstruthal is a part, is thus referred to—"In Gwennap, at a former working, left a profit of nearly 100,000l. The mine is not more than 70 fathoms deep. In fact, most of its riches were found above the 60 fathom level, and during three years, from 1826 to 1829, ores were raised to the value of 132,186l.; but in consequence of extravagant working and the ore failing, the mine was abandoned about six years ago." About 1843 it was again started in 128 shares only, but we think this was at the north part of the sett. At any rate, so long as we can remember the mine has been a favourite, and may some day we trust amply reward some one.

We have this week received some very rich specimens of ore from Irish Creek, United States, and said to be tin. We hope next week to say more about them.

IMPROVEMENT IN OVER-HEAD TRAVELLING CRANES.—Messrs. Hulse and Co. have recently erected in their engineering works at Manchester, where considerable extensions are at present being carried out, a specially designed over-head travelling crane, embracing several improvements upon the ordinary type of crane that are worth noticing. One of the special objects Messrs. Hulse had in view was to construct a crane which would have command of its work as close to the wall on either side of the shop as possible, and in the crane they have designed they are able to get within 3 ft. of the wall on one side and 3 ft. 6 in. on the other. The crane, which has a span of 30 ft., and is constructed for lifting 25 tons, is driven by ropes running along one side of the shop, and the driving head being a fixture at one end of the crane, cross-driving is dispensed with. The gearing is in the main of the ordinary type, but there are one or two special features introduced which are noticeable. Each motion has its own separate clutch, and the cone acting upon the bevel gear expands into another cone, and by adopting this form it is kept in gear without the pressure that is required in cones of the ordinary shape. The driving gear is also arranged that when the crane is out of work there are only two shafts revolving, thus reducing wear and tear to a minimum. To enable the crane to command its work close up to the wall side a bogey carriage has been introduced for placing the lifting tackle in the position required, and this carriage is driven by a separate knobb chain, whilst for lifting a double chain is employed, so that whatever the weight being raised the strain on the crab is equalised. The man in charge of the crane is carried on staging, where he has not only complete control of the whole of the driving gear, but a full and unobstructed view of the shop-floor. At present Messrs. Hulse have simply constructed the crane to meet the requirements of their own works, where it has given very satisfactory results, but the special features they have been able to introduce will no doubt commend it to the attention of other engineers where it is essential for hauling work to have the fullest possible range of the shop.

THE BARROW IRON AND STEEL COAL MINES, NEAR BARNSLEY.—On Tuesday, the Duke of Devonshire (Chairman of the above company), Lord Cavendish, and several others interested in the Barrow Iron and Steel Company, paid a visit to the coal pits connected with the works, on which there has been an outlay of something like a quarter of a million sterling. The party was received by the manager and other officials, and were shown the fine plant, coke ovens, &c. The place is one of the finest in the kingdom, there being three seams of coal worked, the drawing shaft being 510 yards from the surface, and the company was the first to prove the Silkstone seam from the Barnsley bed, which added about 15,000 acres to the known supplies of fuel in the district, and that of the best quality. Near to the colliery are a large number of excellent cottages for the workmen, the place in fact being like a small town, on which no expense has been spared in providing for the comfort and health of the employees. A large quantity of coke is made from the small coal for the furnaces at Barrow, being sent over the Midland line. The coal is cleaned by the use of Shepherd's patent washing machine, and when dried is put into a number of Coppee's ovens, which turn out a good quality of coke, although it is not perhaps quite so bright in appearance as that made in the ordinary beehive ovens. After visiting the engine rooms, the machinery, &c., the party, much pleased with what they had seen, proceeded to Worsborough Hall (which is leased by the company), where luncheon was partaken of, after which the party left by railway. It may be said that when working the pits find employment for upwards of 1000 men and boys, but the place has been standing for about three weeks in consequence of a strike.

CHLORIDE OF ZINC DISTILLATION.—Mr. A. JAMIESON, of Chicago, has patented an apparatus for this purpose, which consists of two tanks, lead lined, closed at the top, and connected by a curved pipe. At the bottom of each tank is a coil of pipe, and one tank is provided with two superposed shelves. The tank without shelves is partially filled with water, to which is added salt and sulphuric acid. Under the action of steam from the coil of pipe a vapour is given off, which passes into the second tank, called the condenser, also filled with water, and having pieces of zinc placed on its shelves. This vapour acting on the pieces of zinc produces chloride of zinc.

that where the pressure is great there are no bridges. On several points a proper anchoring of the pipe has given much trouble, but so far I am perfectly satisfied with the strength and soundness of the work. Next week we commence descending to Orita, and the ground is more favourable, and the pressure on the pipe less.—Mine: The timber cut down has been burnt off, but, as the board will observe, a very large quantity of big trunks remain. All good timber upon the mine I have had cut into boards or blocks, as these will cost less than when brought from a distance, as any surplus of planks and blocks will be required by the company.—Outter: This I am having cleared and got in order for running for account of the company, as, after running is commenced at the mine it will be impossible to work in the outter, and fallen trees and boulders should be blasted out before tallings are run in, or these will cause the outlet to dam up, and become a continual annoyance.—Reservoirs: A tunnel of nearly 300 ft. in length brings the water from these to the lower ditch and bulkhead; the reservoirs have been completed but for having come into granite boulders requiring blasting. I expect the tunnel to be holed in about eight days' time. Men are distributed along the whole line, and a race is being kept up between those bringing on the water and those making preparations at the mine to see which will be finished first.

PIERREFITTE—Manager, Oct. 27: South Mine—Middle Levels: The north-west middle level has been extended between 2 and 3 miles during the past two weeks; the end has a better appearance now than it has had for some time past. The lode is becoming larger, and is now about 13 in. wide, whilst until lately, and for some distance, it has been only a few inches wide. There are spots of lead throughout the lode. I regret to say that the stopes in the back of this level are now very poor. The men have removed the men to the south-east middle level. In the cross-cut, the intersection of the lode we have now reached what appears to be the hanging-wall. We can distinctly hear the men working in the rise being put up from the level below, and I expect shortly the communication will be made. I have put four miners to stop the right side of the cross-cut, where the lode is worth about 4 tons of silver-lead ore and blends pure silver-lead with the copper-lead. The south-east middle level, turning gradually to the right, where I expect after extending a few feet, to intersect the new branch of the lode.—No. 2 Level: The stope and rise in back of the new branch of the lode in this level, south-east of the slide, continues to be quite as rich for silver-lead as when I sent my last report—8 tons to the fathom of the lode being carried. The length of this stope and rise is about 4 fathoms. The ground is still very hard, and I expect that the course of the lode by the hanging-wall is still very hard, but I feel confident it will be finished by the middle of next month, when we shall begin to drive both north-west and south-east. The machinery and wire-ropes are working satisfactorily. We have still plenty of water for all other purposes.

PITANGUI GOLD.—T. S. Treloar, Sept. 24: The produce for August from the treatment of 285 tons of mineral raised during the month, 1003 oits. of gold (or 3.78 oits. per ton), worth, at 8s. 6d. per oit., 4267. 5s. 6d. The estimated cost at exchange 20½d. was 4207. 10s. 3d.; leaving an estimated profit, of 57. 12s. 3d. There is no change in the mine-reveining rate, the reblasted

RICHMOND CONSOLIDATED.—Telegram, Oct. 23: Week's run (one furnace) \$15,000 from 312 tons of ore; refinery, \$13,000.

majority of the tributors working in this mine have not been successful lately; this is owing to the old stopes being exhausted, in the meantime there is no real prospecting work being done; there are only nine tributors at work; 21 tons of ore shipped during the week.—Lord Byron: The tributors at work in the west shaft have discovered a small body of good ore, which looks very promising.

The present size is about 8 ft. in length by 2 ft. in width. The bottom of No. 2 cave was reached a few days ago. The tributaries commenced sinking on a small seam of ore about 3 in. in width, which is increasing in size very fast as depth is attained. At a depth of 3 ft. the ore has increased from 3 in. to 3 ft. in width; the ore seems to be of very good quality, and is certainly the best prospect we ever had in this mine. Both of these strikes have been made during the last few days, and are not developed enough to base any calculations as to the probable increase in the output. The ore body in No. 2 cave does not look quite so good, but is still showing ore in paying quantities. Have shipped 15 tons ore this week; 13 tributaries are being ore-shipped, and 25 tons smelted, produced.

—Telegraph, Oct. 28; 22, 42, 43.

SANTA BARBARA GOLD.—T. S. Treloar, Pari, Oct. 4: The gold return for the month of September amounted to 3561 oits., and has been derived from 173 tons of mineral from the stope advancing, the bottom of the old mine being equal to 4-585 oits. per ton; the lode presents no change calling for notice. Holland's shaft was sunk during the month 3 fathoms, and some stone therefrom was sent to the mills but of inferior quality; there are, however, indications that the lode at this point will improve ere long. At present sinking of both the shaft and winze is under suspension, and stoping also is interrupted somewhat through want of force, due to the large number of natives who have as customary at this season of the year, gone to their homes to attend to their "rosas," or plantation, and also to an unusually heavy sick list just now.

JOHN R. GAY.—Telegram from Morro Velho, dated Rio de Janeiro Oct. 30: Produce 10 days (second division of October) 6250 oits., value 24222, yield 3.6 oits. per ton.

TOCOPILLA.—George E. Tilly, Aug. 31: Carmelita Mine: The sinking of Jose's shaft was resumed on Aug. 28 by a full force of men, and the work is being pushed on vigorously. The lode carries a small branch of yellow copper ore on the hanging-wall side, which extends $\frac{1}{2}$ in. 12 cent. or so per metre. In the first 2 metres extended the No. 12 level, east of Jose's shaft, produces 37·67 quintals of good quality copper ore; it then became poor and the ground seems to be of a very changeable nature, but there are at present favourable indications of the lode soon becoming productive. As it is of the greatest importance to prove the ore-bearing ground in this level without delay we are doing our utmost to prosecute the work with all speed, but the present men cannot perform their work satisfactorily owing to the foul air; however, in the course of a few days we hope to communicate with the No. 12

and to give ventilation, when they will have every facility to work. No. 11 level, east of Jose's shaft, has been improved in appearance during the past month, it having yielded 55.55 quintals of 12 per cent. ore. The monthly receipts good indications of maintaining its present value. No. 1 winze sinking below the No. 11 level, east of Jose's shaft, yielded 273.95 quintals of 12 per cent. ore, and the lode seems to be gradually improving. Seeing this favourable change, we may reasonably expect to find profitable ore ground in the No. 11 level earlier than anticipated. No. 10 level, east of Jose's shaft, produced 250 quintals of 10 per cent. ore; the lode is now narrow and poor, but judging from the character of the lode this squeeze is a very favourable sign of our approaching ore-bearing ground. At the No. 3 winze sinking below the No. 10 level, east of Jose's shaft, the lode yielded 255.93 quintals of 12 per cent. ore. No. 10 level, west of Jose's shaft, has been improved in appearance during the past month, it having yielded 250 quintals of 10 per cent. ore. We are opening up a profitable ground worth $\frac{3}{4}$ ton of copper ore per metre. Good progress is being made in the sinking of Water shaft, and we hope to obtain the necessary depth for obtaining water in the early part of October month. In the past month the tribute pitches have not yielded their usual quantity of copper ore, but we are pleased to say the new pitches in the back of the No. 11 level are much improved within the last few days, and it is probable we shall increase the returns in the coming month. The surface operations are progressing with their usual regularity.

UNITED MEXICAN.—Mr. Hay, Guanaxuato, Oct. 13: Mine of El Diamante. In the pozo of San Antemio the lode is 2-35 metres broad, but the ore has completely given out. In last public sale we sold 10 cargas for \$118. In the cross-out de San Pablo, during last week we have traversed several strips of quartz, which lead us to the belief that we must be near a vein. In the frente No. 1 of San Juan west the lode is now only 1-40 metre wide, of which 20 centimetres are good ore and the air clear. In frente No. 2 of Santa Rosa west the lode is 1-40 metre wide, but the quartz is so hard that the workmen have found it is quite unproductive yet. During the fortnight we have had a bad luck, a workman working in frente No. 1 of San Juan west the lode is 1-40 metre wide, and at last we have found fine ore in this working. This week we have put contract men to work, that the advance may be greater.

Mine of San Cayano de la Ovejera: In frente No. 7 of San Juan east the lode measures now 2-20 metres in width, all in ore of a good class ramified. On last Thursday 4 cargas were sold for \$405. In frente No. 11 of San Andres east the vein is 1-20 metre broad. At the end of last week a small working has appeared 20 centimetres wide in ore. The frente No. 11 of San Andres east has not improved since my last report; the lode is 1-50 metre broad, and good appearances continue to be seen. The ore has entirely given out in frente No. 13 of San Andres east. In this ore has given out in contratiello No. 5 of San Andres have abandoned this working. In last public sale however, we sold 2 cargas for \$137. In contratiello No. 5 of San Andres pretty fair ore is ramified over the whole breadth of the lode, which measures 75 centimetres in width. In last public sale 2½ cargas sold for \$161.

In pozo No. 1 of San Andres the lode is 75 centimetres broad, with but little

ore in it. In pozo No. 5 of San Andres the lode is 75 centimetres broad, with but little ore ramified all over it. Last Friday at the bottom of this winza we began two ends, called frente No. 14 de San Andres west, and frente No. 14 de San Andres west. In pozo No. 7 of San Andres the lode is getting narrower, and has a width of only 75 centimetres, with little ore in a state of ramification. In pozo No. 9 of San Andres the ore is ramified, being of the same class as heretofore. In pozo No. 10 of San Andres the vein is 70 centimetres broad, and the

At the public sale on the 19th inst. we sold about 342 cargas for \$8113; 441 cargas were sent to Duran, and 1 carga 1 arroba 19 lbs. of bonito were sold. This makes an extraction for last week of 784 cargas of hacienda ore from San Cayetano, and with the ore from El Diamante 794 cargas of hacienda ore from the new concern.—San Antonio de la Ovejera: In the frente de San Pedro the lode continues to look well. During last week a working has appeared to the baje with better appearances of ore than last reported on. From an assay made there are traces of silver.—San Martín: In this frente nothing of importance has been discovered. The return from the Mine of San Cayetano de la Ovejera for the week ending Oct. 11, 1894, \$10,630.67; outlay, \$3525; El Diamante returns, \$1118; outlay, \$487.

GOLD AND SILVER.—Messrs. **PIXLEY and ABELL** (Oct. 30) write:—Gold. There has been good demand for gold, and all arrivals have been purchased for export. In addition to the 381,000*l.* has been withdrawn from the Bank, of which 321,000*l.* has gone to the United States, and the rest to Alexandria. The arrivals are 30,000*l.* from Australia, 25,000*l.* from the West Indies, and 64,160*l.* from Vera Cruz. The Tamar takes 10,000*l.* from this country. 45,000*l.* goes by the P. and O. steamer to Alexandria, and 5000*l.* to Bombay. Mexican Dollars at 50*½*d. to 50*¾*d. per oz. silver our last, until to-day, when lower rates of Exchange have been obtained from India. Purchases for the Continent having ceased, the price fell to 50*¼*d., and at this figure the amount by the Medway, from the West Indies, has been placed. The imports have been 30,940*l.* from the Brazils, 40,000*l.* from New York, 32,000*l.* from Chili, 25,000*l.* from the West Indies=128,940*l.* The Peshawur takes 18,500*l.* to Bombay: Mexican Dollars at the major part of the arrivals by the Medway were sold before the arrival, and the small balance will probably be dealt with at lower rates. The Medway brought 99,800*l.* from West Indies, the Oaxaca brought 45,200*l.* from Vera Cruz. The quotations for bullion are—Bar gold, fine, 7*½*s. 9*½*d. per ounce standard; bar gold containing 20 dwts. silver, 7*½*s. 11*d.* per ounce standard; bar silver, fine, 50*½*d. per ounce standard; bar silver containing 5 grs. gold, 50*½*d. per ounce standard; Mexican Dollars, 50*½*d. per ounce; Mexican Dollars, no price; quicksilver, 5*l.* 10*s.* to 5*l.* 12*s.*; discount 3 per cent.

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POVERTY has been written as an antidote to the teachings of Henry George, Land Nationalisers, and Socialists, as to the causes of and cure for Poverty.

"Our object should be to make the poor richer, and not the rich poorer. The way to distribute riches is not to destroy them. Those men are leading the working class to ruin in giving them hopes that are impossible. There can be no worse advisers for the poor than those who tell them to look for improvement in utterly wrong directions—who, professing to take them out of bondage, only lead them into a wilderness beyond which there is no promised land. The world will not adapt itself to us; we must adapt ourselves to the world. 'The future hides in its gladness and sorrow.' We must press on; leave the individual free to develop his powers; starting him in the world's struggle, determined to go onward, nothing daunting him, seeing success more or less before him, if he but avoids those causes of failure to so many, a careless indifference and a culpable ease. The majority of the difficulties of life will succumb to industry, allied to ingenuity and thrift.

"There is no nobler field for philanthropy than the teaching of the poor how to help themselves; it is a field worthy of the highest intellect in the State, for it strikes at the root of pauperism, of misery, of the demoralisation and degradation of the masses. Trace back to its cause the distressful want of those who are able and willing to work, and you will find the cause of failure in their lives is based upon the unfortunate selection of the trade by which they have to live. To check the evil we must prevent the recurrence of its cause. Boys must be educated in habits of industry and thrift; they must be taught a trade or handicraft; they must acquire regular, methodical business habits. There is no real kindness in any help that pauperises or renders helpless those it assists; to benefit your fellows you must teach them to be self-helpful, give them a knowledge by which they can live—a knowledge of different kinds of work—a knowledge that makes it possible for them to earn a livelihood anywhere—a knowledge that keeps men in the straight path, because they are not, in utter despair, tempted to go wrong—a knowledge that will enable them to obtain the legitimate reward of lives of honest industry and exertion. The progress may be slow, but must be sure, because, as the circle within which it works widens and expands, the area of pauperism upon which it acts becomes contracted. Improve the rising generation, and you may look forward with sanguine expectations of improvement in the future. Infuse hope into the minds of the poorest. 'Look not mournfully into the past—it comes not back again; wisely improve the present it is thine; go forth to meet the shadowy future without fear.' (Longfellow).—'Poverty,' p. p. 207, 208.

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CONCLUDING REMARKS.

BUSINESS.—71st THOUSAND (p. 6).

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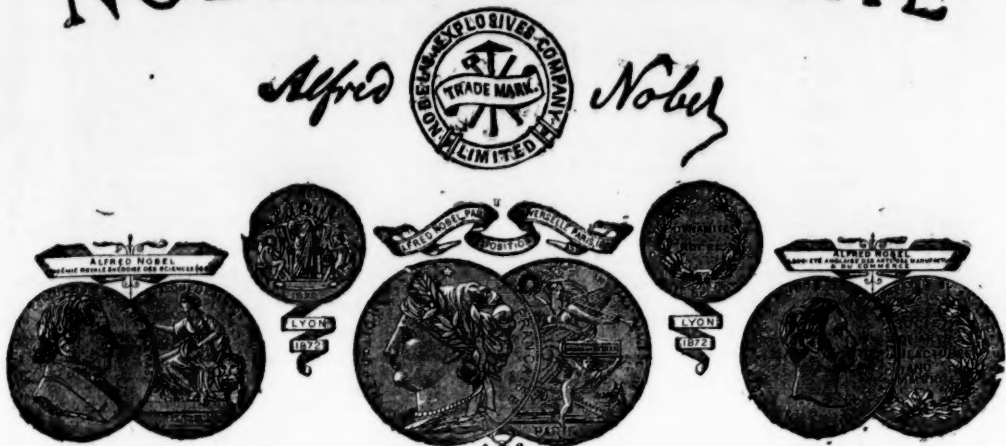
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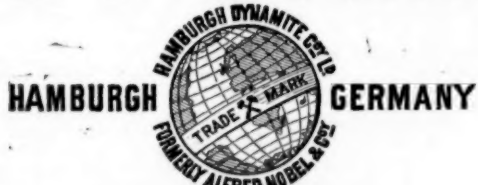


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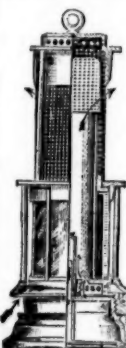
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30000 Bismarck, c. Norway	2 0	0 0	1 1/4	2 11	0 0	1 0 June 1884
30000 Bismarck, c. Norway	2 0	0 0	1 1/4	2 11	0 0	1 0 June 1884
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37500 Carnarvonshire Cons., s. Llanwrthwl	2 0	0 0	3 1/4
6400 Cashwell, s. Llanwrthwl	2 10	0 0	3 1/4
6000 Cathedral, s. Gwynedd	1 12	0 0	3 1/4
20000 Central Fockdale, s. Isle of Man	1 17	0 0	3 1/4
300000 Clifford Amalgamated	1 0	0 0	3 1/4
25000 Ood-y-Pedw-Pant-y-Buarth, s. Llanwrthwl	1 0	0 0	3 1/4
2450 Cook's Kitchen, s. Illogan	35 14	9 11	3 1/4
50000 Creigiau, s. Denbighshire	0 17	0 0	3 1/4
36400 Crook Burn, s. Llanwrthwl	0 17	0 0	3 1/4
48728 D'Eresby Mountain, s. Llanwrthwl	0 10	0 0	3 1/4
12000 Derwent, s. Durham	4 0	0 0	3 1/4
60000 Devon Great Consol., s. Tavistock	1 0	0 0	3 1/4
12000 Devon Great Consol., s. Tavistock	1 0	0 0	3 1/4
50000 Drakeville, s. St. Agnes	0 15	0 0	3 1/4
12000 Duchy Park, s. St. Agnes	1 0	0 0	3 1/4
12000 East Blue Hills, s. St. Agnes	0 5	0 0	3 1/4
6144 East Botallack, s. St. Agnes	1 2	0 0	3 1/4
12000 East Caradon, s. St. Agnes	1 17	0 0	3 1/4
30000 East Craven Moor, s. Pateley Bridge	1 0	0 0	3 1/4
12000 East Devon Cons., s. Buckfastleigh	2 0	0 0	3 1/4
20000 East Long Rake, s. Wales	1 0	0 0	3 1/4
25500 East Roman Gravel, s. Salop	1 0	0 0	3 1/4
12000 East Van, s. Llanidloes	5 0	0 0	3 1/4
2048 East Wheel Lovell, s. Helston	0 3	0 0	3 1/4
100000 East Wheel Rose, s. Newlyn East	1 0	0 0	3 1/4
25000 Eton, s. Wotton	1 0	0 0	3 1/4
12500 Frongoch, s. Cardigan (11000 sh. iss.)	2 0	0 0	3 1/4
12000 Gawton, s. Tavistock	2 5	0 0	3 1/4
40000 Glas. Car. (30000 sh. & 10000 15s. pd.)	1 0	0 0	3 1/4
30000 Gobbett, s. Devon	1 0	0 0	3 1/4
10000 Goddards, s. Carnarvon	1 0	0 0	3 1/4
32000 Goginan, s. Cardigan	1 0	0 0	3 1/4
25000 Goodfellow, s. St. Agnes	1 0	0 0	3 1/4
85000 Gorse and Merthyr Cons., s. Flint	2 10	0 0	3 1/4
60000 Great West Chivor, s. St. Agnes	0 5	0 0	3 1/4
50000 Great W. Shepherds, s. Cornwall	0 0	0 0	3 1/4
20000 Grogwinion, s. Cardigan	2 0	0 0	3 1/4
10000 Gwyn-y-Mynydd, s. Flint (pref.)	4 0	0 0	3 1/4
70000 Gwydyr Amal, s. St. Agnes	1 0	0 0	3 1/4
8400 Harshins, s. Westmore (10s. sh.)	0 7	0 0	3 1/4
12000 Herodsfoot, s. near Liskeard	1 6	0 0	3 1/4
18000 Hington Down, s. Calstock	0 13	0 0	3 1/4
35000 Holway Consol., s. Flintshire	1 0	0 0	3 1/4
25000 Kit Hill Gt. Cons., s. s. m. (21. sh.)	1 2	0 0	3 1/4
15000 Lady Ann, s. Llanwrthwl	1 0	0 0	3 1/4
15000 Llanidloes, s. Wales	1 0	0 0	3 1/4
5120 Lovell, s. Wenden	1 0	0 0	3 1/4
90000 Marke Valley, s. Llanidloes	7 15	0 0	3 1/4
30000 Mona, s. Anglesea	5 0	0 0	3 1/4
20000 Mona Consol., s. Anglesea	1 0	0 0	3 1/4
20000 Mostyn Consol., s. Flint	1 0	0 0	3 1/4
12000 Morfa Du, s. Anglesea	1 0	0 0	3 1/4
80000 Mounts Bay, s. Breage	1 0	0 0	3 1/4
6144 Mount Carbis, s. Redruth	1 19	0 0	3 1/4
12000 New Caradon, s. St. Agnes	0 0	0 0	3 1/4
2400 New Cook's Kitchen, s. Illogan	15 5	0 0	3 1/4
8000 New Dolcoath, s. Camborne	4 0	0 0	3 1/4
10000 New Holmbush, s. s. Callington	4 0	0 0	3 1/4
6000 New Kitty, s. St. Agnes	1 9	0 0	3 1/4
25000 New Langford, s. s. Callington	0 2	0 0	3 1/4
15000 New Redmoor, s. Callington	1 5	0 0	3 1/4
17500 New Tinnor, s. St. Austell	2 0	0 0	3 1/4
3500 New Tinnor, s. Lelant	6 0	0 0	3 1/4
12000 New Tinnor, s. Lelant	1 0	0 0	3 1/4
30000 New Van, s. Glyn, s. Lelant	7 0	0 0	3 1/4
12000 New West Caradon, s. Llanidloes	7 0	0 0	3 1/4
30000 New Wheel Pease, s. Redruth	0 10	0 0	3 1/4
12000 North Blue Hills, s. St. Agnes	0 2	0 0	3 1/4
5328 North Busy, s. s. Scorrier	2 4	0 0	3 1/4
10000 N. D'Eresby Mount, s. s. Carnarv.	1 0	0 0	3 1/4
25000 North Goginan, s. Cardigan	1 0	0 0	3 1/4
8400 North Green Hurth, s. Cardigan	1 0	0 0	3 1/4
25000 North Grogwinion, s. s. Cardigan	1 0	0 0	3 1/4

NON-DIVIDEND MINES—continued.

Shares.	Paid.	Last wk.	Clos. pr.
12000 North Herodsfoot, s. Liskeard	0 13	0 0	3 1/4
2000 North Levant, s. St. Just	14 3	0 0	3 1/4
50000 North Molton, s. s. m. s. Devon	1 0	0 0	3 1/4
2938 North Trekerby, s. St. Agnes	1 0	0 0	3 1/4
8000 Northern, s. Llanidloes	3 17	0 0	3 1/4
40000 Okel Tor, s. s. c. s. Calstock	1 0	0 0	3 1/4
80000 Old Shepherds, s. s. c. Cornwall	1 0	0 0	3 1/4
60000 Owen Vean & Tregur, s. s. c. Marazion	1 0	0 0	3 1/4
45000 Parys Corporation, s. c. Anglesea	1 0	0 0	3 1/4
7500 Pateley Bridge, s. Yorkshires	1 0	0 0	3 1/4
6000 Pedn-an-drea, s. Redruth	4 10	0 0	3 1/4
6000 Pennant, s. s. m. North Wales	5 0	0 0	3 1/4
20000 Penegarrig, s. s. m. North Wales	1 0	0 0	3 1/4
15000 Pen-y-Orsedd, s. s. m. North Wales	1 0	0 0	3 1/4
10000 Polberrig, s. St. Agnes	1 0	0 0	3 1/4
12000 Polbreho, s. s. m. North Wales	0 10	0 0	3 1/4
10000 Port Nigell, s. s. m. North Wales	0 10	0 0	3 1/4
13000 Pr. Patrick, s. s. c. s. Calstock	1 0	0 0	3 1/4
12000 Prince of Wales, s. s. c. s. Calstock	1 2	0 0	3 1/4
30000 Russell United, s. c. Tavistock	0 19	0 0	3 1/4
30000 Silver Hill, s. Callington	1 0	0 0	3 1/4
50000 Sinclair, s. s. m. North Wales	1 0	0 0	3 1/4
40000 Sorridge, s. s. m. North Wales	1 0	0 0	3 1/4
90000 South Caradon, s. s. m. North Wales	1 0	0 0	3 1/4
8000 South Carbis, s. s. m. North Wales	0 10	0 0	3 1/4
42000 So. Devon Unit, s. c. Buckfastleigh	1 0	0 0	3 1/4
5000 South Dolcoath, s. s. m. North Wales	0 10	0 0	3 1/4
6000 South Killy, s. s. m. North Wales	0 10	0 0	3 1/4
6000 South Penrith, s. s. m. North Wales	0 10	0 0	3 1/4
30000 So. Phoenix & Caradon, s. s. m. North Wales	1 0	0 0	3 1/4
6000 South Tolarne, s. s. m. North Wales	5 11	0 0	3 1/4
2043 South Wheel Crofty, s. Illogan	7 4	0 0	3 1/4
8000 South Wheel Frances, s. Illogan	9 19	0 0	3 1/4
30000 Standard, s. s. m. North Wales	1 0	0 0	3 1/4
40000 Tamar, s. s. m. North Wales	1 0	0 0	3 1/4
12000 Trebartha Leman, s. Northill	0 6	0 0	3 1/4
6000 Tregembo, s. s. m. North Wales	4 0	0 0	3 1/4
50000 Tregontres and Old Polgoth Cons.	1 0	0 0	3 1/4
100000 Trevaun, s. s. m. North Wales	1 0	0 0	3 1/4
8000 Trevaun, s. s. m. North Wales	0 8	0 0	3 1/4
1000 Vaughan, s. s. m. North Wales	10 0	0 0	3 1/4
50000 Weardale, s. s. m. North Wales	1 5	0 0	3 1/4
12000 West Asherton, s. s. m. North Wales	1 0	0 0	3 1/4
12000 West Caradon, s. s. m. North Wales	1 0	0 0	3 1/4
30000 West Cornwall, s. s. m. North Wales	1 0	0 0	3 1/4
30000 W. Craven Moor, s. Pateley Bridge	10 0	0 0	3 1/4
12000 West Ebor, s. s. m. North Wales	0 11	0 0	3 1/4
10240 West Devon Consol., s. Calstock	1 2	0 0	3 1/4
10500 West Goldolphin, s. s. m. North Wales	1 3	0 0	3 1/4
12000 West Goss, s. s. m. North Wales	1 0	0 0	3 1/4
15000 West Holway, s. s. m. North Wales	1 0	0 0	3 1/4
20000 West Llanidloes, s. s. m. North Wales	1 0	0 0	3 1/4
30000 West Mary Ann, s. s. m. North Wales	1 0	0 0	3 1/4
20000 W. Pateley Bridge, s. Yorkshires	1 0	0 0	3 1/4
12000 West Phoenix, s. s. m. North Wales	1 0	0 0	3 1/4
6000 West Polberrig, s. s. m. North Wales	0 10	0 0	3 1/4
5190 West Polberrig, s. s. m. North Wales	7 10	0 0	3 1/4
6144 West Wheel Frances, s. Illogan	14 10	0 0	3 1/4
30000 West Wheel Pease, s. Redruth	4 18	0 0	3 1/4
2400 West Wheel Pease, s. Redruth	20 10	0 0	3 1/4
6144 Wheel Basset, s. Illogan	5 9	0 0	3 1/4
4000 Wheel Bony, s. s. m. North Wales	5 0	0 0	3 1/4
3000 Wheel Boy, s. Redruth	5 0	0 0	3 1/4
50000 Wheel Castle, s. s. m. North Wales	1 0	0 0	3 1/4
12000 Wheel Coates, s. s. m. North Wales	0 11	0 0	3 1/4
2585 W. Comf., s. s. m. North Wales	2 0	0 0	3 1/4
50000 Wheel Elizabeth, s. s. m. North Wales	2 0	0 0	3 1/4
12288 Wheel Jane, s. s. m. North Wales	3 6	0 0	3 1/4
12000 Wheel Jewell, s. s. m. North Wales	1 0	0 0	3 1/4
12000 Wheel Lusk, s. s. m. North Wales	0 3	0 0	3 1/4
2000 Wheel Owles, s. s. m. North Wales	0 3	0 0	3 1/4
30000 Wh. Silver & Lanteglos, s. s. m. North Wales	7 3	0 0	3 1/4
6000 Wheel Slaters, s. Lelant	4 2	0 0	3 1/4
4036 Wheel Uay, s. s. m. North Wales	20 7	0 0	3 1/4
21885 Wye Valley, s. s. m. North Wales	1 0	0 0	3 1/4
60000 Yealand Consol., s. s. m. North Wales	0 12	0 0	3 1/4
4000 Ytwith, s. s. m. North Wales	1 0	0 0	3 1/4

NON-DIVIDEND FOREIGN MINES; FOREIGN AND MISCELLANEOUS STOCKS; TRAMWAYS; INSURANCE COMPANIES; GAS, IRON AND COAL, FINANCIAL AND INVESTMENT COMPANIES, &c.

NON-DIVIDEND FOREIGN MINES.

Shares.	Paid.	Last wk.	Clos. pr.
50000 Akankoo, s. Gold Cst. (100000 iss.)	1 0	0 0	1 1/4
44800 Anglo-African, s. Kimberley	10 0	0 0	1 1/4
12000 Arendal, s. Norway	4 0	0 0	1 1/4
20000 Asia Minor, s. s. m. North Wales	0 15	0 0	1 1/4
1200000 Balkis, s. Transvaal	1 0	0 0	1 1/4
20000 Belt, s. Lake Sup. (22000 sh. iss.)	1 0	0 0	1 1/4
20000 British Australasian, s. s. m. North Wales	1 0	0 0	1 1/4
10000 Buena Ventura, s. Spain (15000 sh. iss.)	2 0	0 0	1 1/4
60000 Callao Bis, s. Venezuela	1 0	0 0	1 1/4
125000 Canadian, s. s. m. North Wales	4 0	0 0	1 1/4
150000 Chile, s. Venezuela	1 0	0 0	1 1/4
25000 Chontales, s. s. m. North Wales	1 0	0 0	1 1/4
75000 Colombian Hydraulic, s. Colombia	1 0	0 0	1 1/4
300000 Devala Moya, s. s. m. North Wales	1 0	0 0	1 1/4
75000 Devala Moya, s. s. m. North Wales	1 0	0 0	1 1/4
25000 Devala Moya, s. s. m. North Wales	1 0	0 0	1 1/4
80518 Eberhardt, s. Nevada	1 0	0 0	1 1/4
60000 Eureka, s. Nevada	1 0	0 0	1 1/4
40000 Georgia, s. United States	10 0	0 0	1 1/4
80000 Gold Coast, s. s. m. North Wales	1 0	0 0	1 1/4
40000 Gold Hill, s. North Carolina	1 0	0 0	1 1/4
30000 Hoover Hill, s. North Carolina	1 0	0 0	1 1/4
12000 Hultsfeld, s. s. m. North Wales	5 0	0 0	1 1/4
90000 Indian Consolidated, s. s. m. North Wales	1 0	0 0	1 1/4
140000 Ind. Glenrock, s. s. m. North Wales	1 0	0 0	1 1/4
140000 Ind. Glenrock, s. s. m. North Wales	1 0	0 0	1